ICD JANUARY 1972

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WANTED: 7 FEARLESS ENGINEERS
by Warner Van Lorne

THE DEADLY SLIME
by Frederic Arnold Kummer Jr.

THE CITY THAT WALKED
by Ed Earl Repp

THE CITY OF OBLIVION
by Bradner Buckner

WORLD WITHOUT DEATH
by Polton Cross

THE WHISTLING DEATH
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THE CITY OF OBLIVION

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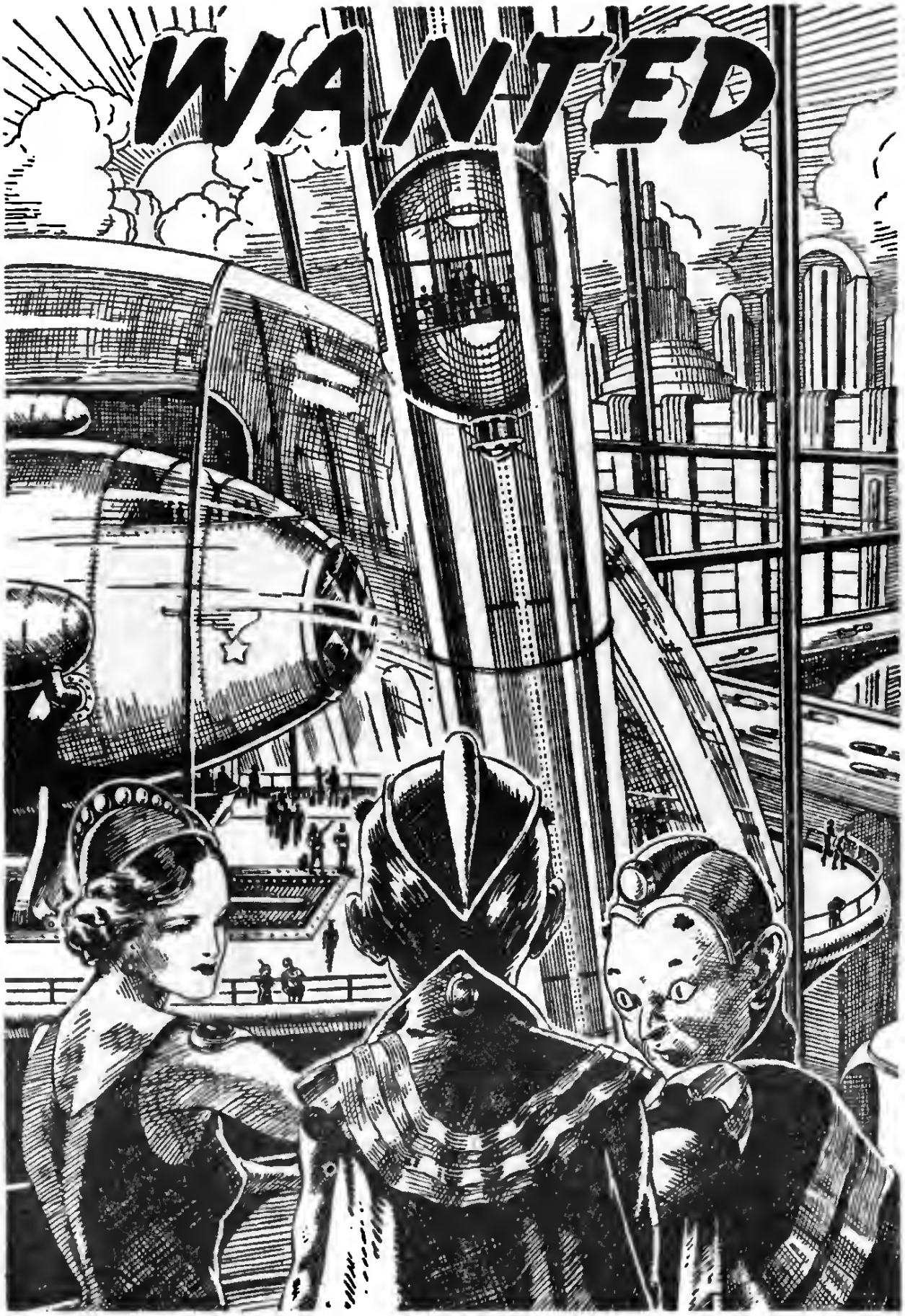
WANTED

7 FEARLESS ENGINEERS!

By WARNER VAN LORNE

A great civilization's fate lay in Dick Barrow's hands as he led his fellow engineers courageously to an unknown land

CHAPTER I

Opportunity

FROM where Dick Barrow sat, hundreds of men were visible, occupying benches in every manner of position. Some stretched at full length, sleeping in the morning sun after a night in the park. Others sat with heads hanging; thinking thoughts of their own.

Depression or recession, it meant the same to all of them. Some didn't care, but others tried to find any kind of work that would fill their stomachs with food.

For three days Dick hadn't eaten a good meal, and felt almost as low as the derelicts whom he had for companions. He would have enjoyed a smoke, but turned away as two men dove for a cigarette-butt; discarded by a passer-by.

Anyone who could afford to buy a newspaper was an aristocrat, and Dick watched until he saw one discarded. For three days he had been reading them secondhand, but the only jobs were too far to walk and apply for.

His eyes stopped at one item in the column and a puzzled frown slowly puckered his forehead.

Wonted: An Engineer. Young mon with love for electricol ond mechonical work, who is not afroid of isolation. Hove some knowledge of engineering, but gencrol experience more desirable than specialized training. Must be willing to leave country, never to return; for which he will be well remuneroted. Have no close fomily ties, ond willing to submit to certoin omount of danger. Will be isoloted with few members of own race, but will have greot opportunity to develop mastery of huge mochines. Come prepared to leove for post immediately, w i t h o u t preporotion. Every wont will be token care of by employers. This position is for lifetime, without opportunity of turning back after having occepted responsibility. GREAT OPPORTUNITY! Room 36, 18 W. Morgon Ave., City.

For a long time Dick Barrow gazed at the ad, mentally comparing his own qualifications for the position—and they *seemed* to fit! He was not a graduate engineer, being forced to quit school after two years of study. Three years later his father died, then Dick lost the job that had kept them eating regularly. His love of mechanics remained insatiable, and he constantly hoped for work which would allow him to use his knowledge and ability.

He had no relations, and the *only* girl had forgotten him, when he left school. He heard that she married a classmate!

Dick was twenty-seven. Five years had slipped by since he quit school, and he couldn't remember where they had gone. It was only six months after his father died that he lost his last regular job. He tried selling and was a failure. He had been carpenter's helper, plumber's helper, porter, counter-man and busboy as the months passed, but nothing steady. For the past two months he had been hunting for work, while his few dollars dwindled to where he no longer had room rent. Then it was the park.

His feet were sore and blistered from holes in his shoes, and he limped with every step. It took so long to reach the address that there was little chance of finding the job still open. It was not the first time he had missed—for the same reason.

HE found that 18 Morgan Avenue was a dreary structure, appearing as if it had been standing twenty years too long. The wooden stairs creaked as he rested his weight on first one sore foot and then the other. Room 36 was at the top of the five story building, and it seemed ages before he reached the doorway. The only sign of furnishing in the room was a hard bench. occupied by three men. Dick had to stand while his feet tortured him, but it was hopeful to see men waiting—*the job wosn't filled!*

Suddenly a door at the opposite side of the room jerked open and a man dashed through.

"Get out of here! The man's *insane!*"

Two of the men followed, but the man who remained on the bench glanced at Dick, grinned, shrugged his shoulders and entered the door. A moment later his booming voice could be heard through the thin partition, although his words were not clear.

An hour passed while Dick waited. When the man came out, with a smile on his face, he wished Dick luck and headed for the stairway.

Barrow felt a queer sensation as he stepped through the inner doorway. A man faced him in a huge leather chair across the room. At least Dick thought he was a man. Grotesque in every way, his body was small while his head was twice as large as normal. He was light complexioned, with almost white hair

thinly covering the top of his enormous head. His features were finely cut, with large aquiline nose. He was not repulsive, and smiled in welcome as Dick hesitated at the threshold. When he spoke his tone was soft and musical.

"Welcome, stranger. You have come in answer to my advertisement and I will explain without wasting time. But first tell me about yourself."

Going over his complete life history, including the two years in college, Dick came to the lean years when his father died. He hesitated slightly not proud of this period.

"Go on, Mr. Barrow. It is not important to have been a success in business, and I will not consider that in your qualifications. It isn't what you *have* done, but what you *want* to do, that interests me."

He spoke with a strange accent, that Dick didn't recognize. But he was pleasant and made it easy to talk.

When Barrow finished, by relating the finding of the newspaper and the long walk to the office, the queer man was smiling.

"I like your frankness and will tell you about the position, although I can't reveal the location of your work. It is not on any map, and you will work among a race such as myself, with no opportunity of leaving after reaching the destination.

"You will be given every comfort and advantage among my people, and be required to work hard in return. There are several machines out of commission which must be repaired and put to work again. After a few months your work will be easier, although you must constantly watch all machinery to see that it is in perfect condition, and does not stop work for even a moment.

"My people use mechanics of greater size and development than anything you have ever seen, and our lives depend on its perfect operation. In order to accept this position you must be married. Your wife must come with you, and be willing to accept the same living conditions which are offered to you.

"The man who left this office as you entered has a fiancee and has gone to talk it over with her. In your instance *I must select your wife!* You will be the leader of the workmen whom I take back. There will be only a few people such as yourself, and you can never again see others of your race.

"You will have power and wealth among my people, and every type of entertainment that you desire. But remember that you leave your race forever, with *no possibility* of return! If you accept my offer you must trust entirely in what I say about the future."

When the man finished speaking Dick was quiet for a long time. Everything seemed so unreal, so different from what he had expected. He must be willing to leave everything that he had always known—to enter an existence which he didn't understand—without chance of return! Yet he believed every word this man spoke, impossible as it seemed. But *marriage* . . . with a girl he had never *seen!*

The man spoke again. "You hesitate about marrying; I can see it in your eyes. But remember that *she* must accept without knowing you, and is taking just as great a chance. This I can say. She will be brilliant, and I *could not* trust you to pick out a brilliant woman for your wife. Love would come first in your eyes. Other things would seem unimportant. I know that you and the girl I select are apt to fall in love, as I shall choose a girl suitable to your temperament."

Dick answered slowly, "I don't know what to say. I will have to live with her all of my life, and if we are *not*

happy anything you could offer would mean nothing."

The smile spread over the strange man's face again. "I wouldn't worry too much. I believe you stand a greater chance of happiness if *I* do the choosing than if you do it yourself as I can see more of the future. If you are mutually likable and willing to understand each other; if you are mentally on the same level, there is little chance of *not* falling in love. My race mates in this way, and it works much better than your haphazard mating."

When he realized that Dick still hesitated, he was slightly upset. Then reaching into a leather bag, hung from a strap around his neck, he stretched forth a handful of bills.

"Go and get yourself a good meal. It is now morning. When two more mornings have passed come again. Don't be afraid to use the money for anything that you desire. This does not mean that I expect you to accept the offer, but it will allow you to think it over carefully—without thinking of your *stomach*. Buy clothes, a room to sleep in, anything else that you want. Be comfortable and do not worry about what you spend. If you refuse my terms, I will be disappointed, but will not expect to be repaid."

AS Dick reached the street he shook his head. It all seemed so fantastic. But the money in his hand was real money—and there was a lot of it! Suddenly he realized that people were staring at the handful of bills, and he hurriedly stuffed them in a pocket. When he was alone for a moment he stepped into a vacant doorway to count it.

There were 14 twenties, 10 fifties, and three ten dollar bills in the lot. Twenty-seven bills in all, representing eight hundred and ten dollars. Folding the money carefully and placing it in a safe pocket, he noticed a sign across the street. "SHOES," it said. He glanced at his own, then limped slowly across when the traffic lights changed. For a moment he looked in the window, then stepped inside.

While the shoe clerk was busy he carefully slipped a twenty from the other bills. It would seem strange if he had too much money with his feet in such shape.

The next stop was a restaurant. Then followed a trip to a clothing store —and he left his old suit behind. With new clothes, shoes, and a meal beneath his belt, he began to think the offer of the stranger was far from fantastic. What if he did have to marry a strange girl? At least they would both have comfort and companionship, wherever they went.

Barrow's first appointment was on Tuesday morning, and Friday found him climbing the same stairs. He watched the papers but there had been no repetition of the advertisement. Evidently the strange man had all the applicants he wanted.

The outer office was empty, but when he opened the inner door, the queer man was smiling just as Dick remembered him.

"Come in, Mr. Barrow. I'm glad to see you. I was surprised to hear of your use of the money, but was pleased rather than disappointed. You did well."

For a moment Dick was taken back, then he smiled sheepishly. "I don't know just what to say, Sir, I did so many things. But I didn't know I was being watched."

"Every move you made was watched carefully, and reported to me. I know where you spent every hour since you left here the other morning. I wanted to know how you would act with money

enough to do as you pleased for a few days. You acted wisely, and I'm glad that you spent so much of it on men who need it. You bought twenty-two pairs of shoes, thirty-six shirts and forty-five suits of underwear. You also bought cheap suits for nine men and several odd and end accessories as well.

"Out of the total sum you spent less than one hundred dollars for yourself, and yet you have only forty-two dollars of the sum that I handed you. The remainder you used for meals and cheap lodging for the men you have taken care of in the past three days. You have gone through a lot of money since you were here."

Dick stammered as he spoke, "I'm sorry, sir, but I thought—"

"You thought *just right!* I *did* give you the money to use as you pleased and I'm proud of the way you spent it. But I want to know the answer. You must have decided by this time. If the answer is yes, you will bind yourself to a life time of work. If it is no, we will say goodby."

Dick's face lighted with a smile. "The answer is *yes.* I am proud to leave my future in your hands—even to my marriage. I made up my mind to do as you desire, and am prepared to leave any time you are ready. I hope you have hired every one you need and that we will all enjoy our new work."

"You're a brave man, Dick Barrow." There was admiration in the voice of the stranger. "If you remained here I believe you would make your mark in life, but you will have even greater opportunity where you are going. I believe your decision will prove to be a happy one.

"You must stay at a good hotel. Reasonable if you want, although it is not important. I will send the girl to you within a few days. You will be married as soon as possible after you meet her.

"She will bring a letter and will do exactly as you say. I will allow time for you to get acquainted before I have further orders. From that time you will obey my orders explicity and follow every instruction without question. Every member of the party will take orders from you, and *you must give them!*"

Once more Dick was handed a handful of bills as he prepared to leave, and knew there was even more than the first time. But he would live in constant dread of meeting the girl he was to marry. As he started to open the door, the man spoke again.

"Use the money as you desire. It will be your last chance of spending any and I want you to enjoy yourself as much as possible during the time remaining. Do what you like for the men in the park or any others you wish to help. If you need more money send a messenger to this room, but don't come yourself. Don't contact me again until my orders require it. Have a good time."

Dick felt that he was living a dream, but a very pleasant one. Just one thought disturbed him. Who the girl would be—and what she would be like?

CHAPTER II

Out to Sea

THE following morning an advertisement appeared in the papers, under the heading of help wanted: women. It was the same address on Morgan avenue. His heart sank! The man was *advertising* for a wife! Now Barrow *knew* he was in for a tough streak of luck. He read it carefully.

Opportunity for young lady. Must be of age, single, brilliant, with good family background. Higher education not necessary. Must be willing to travel

long distance. Must not be averse to marriage with brilliant young man; give up all former associations, with no possibility of return; live life in small community of own race, with no possibility of communication with former home. Must be without close family ties, or relationship. Opportunity to live life of luxury and ease, with amiable group far from present home and civilization. Young lady who fits qualifications will not regret applying for position. Honor, love and security will be her reward. OPPORTUNITY! Room 36, 18 West Morgan Avenue, City.

While Dick was eating dinner on Tuesday evening, a young lady fell headlong in front of his table. A moment later she was seated in the chair opposite his own. Ten minutes later he was ordering her dinner.

Afterward, as they walked toward a movie, Dick felt as if he was committing a crime. He was supposed to meet his future wife—and instead was entertaining this young lady who had fallen into his life. When he learned that she was staying at the same hotel, they made a date for breakfast the next morning.

Dolores Dunbar was good company, and seemed willing to spend most of her time in Dick's company. He learned that she was as friendless as himself, and wondered why they couldn't have met before he made the strange bargain. But as the third day drew to a close she appeared apprehensive.

When she kept glancing around, as if expecting someone, Dick became curious, and felt rather hurt to think she was looking for someone else. Finally she spoke.

"I'm sorry, Dick, that I've made use of you the way I have, but I was ordered to do it. You see, my employer told me to meet you and spend every possible moment in your company. He also said that I would become acquainted with someone through you, and that you would know who he was, when I said I came from a large headed man on Morgan Avenue—with a letter."

For a moment Dick was stunned. Then he laughed, a sickly, half-hearted laugh. When he found his voice it squeaked.

"I think we had better go to my room. We have some very private things to say."

The queer man had succeeded in their being together for three days before either knew *they* were the central figures in the drama. Now they felt farther apart than at any moment since they had met, but nervously admitted they had fared better than they expected.

THEY were married in the morning, to keep the agreement, but didn't consider it part of the bargain to live as man and wife.

Dick found only one order in the letter, to be at the office at ten o'clock on Tuesday morning. That left five days to enjoy themselves.

In spite of the stiffness between them Dick noticed how the light caught in Dolores' dark hair, and how her brown eyes sparkled at each new sight. Her head reached just above his shoulder, and he had never danced with a better partner. She enjoyed his company, and admitted to herself that he was a perfect gentleman.

During the five days they saw every good show, and visited every popular night club. Things they had always wanted to do were packed into the short time to themselves. Dick hired a car, and they drove for hours through the country. When Tuesday morning came they were tired, and it was hard to get up in time to keep the appointment.

When they opened the door, the big-headed man laughed at their yawns. "I see that you've either *been* enjoying yourselves, or have been *trying* mighty hard. You can make up your sleep from now on, as it will be a long time before we reach our destination. How do you like each other for permanent companions?"

Their faces grew crimson. Finally, Dick found his voice. "I'm perfectly satisfied, Sir. I think Dolores is very pretty, and is *very* good company!"

He looked the other way to hide his embarrassment, as the girl spoke.

"I feel the same way. We have enjoyed being together, and perhaps when we are better acquainted the stiffness will disappear. We both feel odd, because we were required to marry!"

The strange man laughed out loud at this. "In other words you *might* have fallen in love, if you had been allowed time to do it. But *having* to marry creates an entirely different feeling. I believe it will work out well, even though you feel cheated at the moment. But we haven't any time to lose. Everyone is at the dock and we sail in two hours.

"Here are your instructions, Dick. From now on *you* give the orders, and I remain in the background. They will all feel more comfortable under the command of one of their own race. Study everything carefully on the way to the dock, then give them as your own orders."

Dick had little time for anything except to look through the sheaf of papers. On one sheet was a list of seven couples, with stateroom numbers beside each. His own was on the top, with number three room. This he dropped in a side pocket where it would be easy to find. The remainder was in connection with sailing.

Dick, Dolores and the big headed man occupied one cab, while the baggage followed in another. Dolores had obtained quite a wardrobe, much to the amusement to their employer. But the man spoke only once during the trip.

"Everyone in the party must consider that they work for you, Dick. You must hear all complaints and settle all differences. They must not approach me for any reason. I am known as Morquil, of section one, which you will understand when we reach our destination."

The crew was hurrying back and forth on the deck of the small ship, taking care of last-minute details. A group of people were gathered beside a huge stack of baggage, and Dick walked toward them without waiting for the others.

Dolores went up the gangplank beside Morquil, helping him slightly. He seemed to have difficulty in supporting his enormous head with the slight body.

As Dick reached the group, he read the names from the list in his hand. "Mr. and Mrs. John McCarthy. You are in stateroom number seven. Take what baggage you can carry, the rest will be put on board." He called each name and stateroom; they headed for the ship. John McCarthy he found was the man he had met in the office, and he *still* had his perpetual grin. Evidently his fiancee had agreed to the pact for they were now man and wife.

When Dick started toward the ship, after watching the baggage put on board, he was stopped by a tap on the shoulder. The cab drivers were still waiting for their money. Morquil had left everything in his hands, even to paying for the trip to the dock.

It was a strange departure, with only a few people on the dock to say goodbye. Even they were just neighbors of the passengers. Most of the women on board were crying as the "Primrose"

nosed out through the harbor toward the open sea.

DICK was still at the rail when the captain approached. "I'm sorry to bother you, Mr. Barrow, but I must know our destination so I can set the course."

The young leader's day dreaming was cut short, to jerk him back to his duties. He felt that the lives and hopes of everyone on the ship had been thrust into his hands.

Even the captain didn't know where they were going. The ship had been chartered for a voyage of several months, to an unknown destination. He and the crew were well paid, and didn't care where they went.

Dick drew a sealed envelope from his pocket, detached a slip of paper and handed it to the captain. He read the note, then repeated it. "You are to keep the destination to yourself. No one on the ship is to know where we are going, and you will not mention it to me again. I hope that we have good weather, Captain, and a fast trip."

Barrow felt like a fool. Repeating messages as if they were his own—without the slightest knowledge of what they were about. *He* was supposedly charting the course—and didn't have the slightest idea where they were going.

When Dick reached his stateroom (after answering questions from everyone on board—and telling them nothing) he found Dolores sobbing. She had kept her smile until the boat sailed. Now she was crying her eyes out. It was not a new sight, as every woman on the ship seemed occupied in the same way, with the men trying to comfort them.

As Dick sat down beside her, he could feel the throb of the diesel motor. It seemed to carry the rhythm of adventure through the walls of the cabin, giving the feeling of the unknown. For a long time there was silence while Dolores held one of Dick's hands for protection.

"Dick! We only have *one* cabin! I'm supposed to stay here with you—and I *hardly know you!* Morquil told me that I must stay here, there are no extra rooms."

"I'm sorry, Dolores. We will just have to put up with things as they are. We've got into this and will have to see it through. After all, we *are* man and wife, and the people on board would think it strange if we didn't occupy the same room. There are two bunks, so I won't have to sleep on the floor. It will be a long trip, and we might as well enjoy it as much as possible."

Days changed into weeks as the ship plowed steadily south. They stopped at one port for a few hours to refuel, but there was little to see. The ship was slow and it felt good to walk on land again. But no one spoke enough English to answer questions.

It was the only time they sighted land until just before the end of the trip, when small islands began to slide by. Some within a few hundred feet, others just visible in the distance. Morquil hadn't appeared on deck during the entire trip, but now he approached the rail.

His face lighted with an ethereal glow as he gazed across the blue water. He looked like a man who was sighting his home after many years of absence. Dick couldn't help but feel glad for him, while cold chills of misgiving crept up and down his own spine. Their voyage was ending at a far different place that he had pictured in his mind, and quite the opposite of the description which Morquil had given of gigantic mechanical development.

They were passing by small south-

sea islands, where mechanical equipment was out of the question. They hardly appeared *habitable!*

When the captain approached Dick, Morquil joined the conversation. *"I'll* give you the directions, Captain. Mr. Barrow is not feeling well, and I can do it for him.

"In about an hour we will reach the island, and I will point out the entrance to the harbor. It is well protected and there is no need to worry about any storm while we unload."

Every inch of space in the ship was packed with supplies. There were crates of books as well as pieces of machinery. Considerable radio equipment included assembled sets as well as parts. There were rifles and even one small cannon. Several crates of chickens and turkeys joined the other things on the beach. Then to the amazement of the party, a crate of pigs appeared.

IT required three days to empty the ship, and with each passing hour the little party grew more apprehensive. It seemed as if they had been transferred to an island to start a *new* civilization, instead of a place where mechanical development was far advanced. Because Dick was the leader of the party, the others began to look at him with hatred; Morquil was almost forgotten.

When the last piece of equipment was covered with heavy tarpaulins, they constructed a shelter against one side of the pile. It was almost dark when everything was finished, and the captain decided to wait until the next day to sail. Everyone was invited on board the *Primrose*, for a farewell party.

Dick was forced to call a meeting in the main cabin, to forestall danger of the party deserting with the ship. Morquil had instructed him carefully.

"Friends, we are all facing a great adventure. I'm in no different position than you, except that as leader I am responsible for whatever happens. I must take all b l a m e for whatever comes, yet know that it will eventually work out as we expected.

"You all know that it is forbidden to talk about this trip, or to surmise our destination. I can assure you that it is done for your own benefit, and later you will appreciate the fact that you did *not* know the future. I can't say what the next few days will bring to all of us, but be assured that everything you have been promised will be fulfilled.

"At the moment it seems impossible that things can turn out as we expected, but they *will!* You must simply be patient, and do not lose faith in this great adventure."

As Dick finished his speech, Morquil smiled, well satisfied. Dolores even smiled faintly, although it required effort to overcome her feeling of disaster.

The following morning everyone went ashore, and John McCarthy went around trying to aid Barrow in cheering up the party. He lied like a trooper, whispering to everyone that he had discovered something that satisfied *him* about the marvelous civilization they would reach before long.

Word of this reached Morquil, and he hurriedly called Dick and John out of sound of the others. He appeared almost frightened, and the moment they were alone, he spoke.

"What have you learned? I wanted you to know nothing, and it is better if you are ignorant. Whatever you learned is too much, and may upset the future."

John started to laugh, then seeing the expression of agony on the face of Morquil, he stopped short. "Don't worry. I haven't learned *anything!* I simply tried to help Dick keep the people sat-

isfied. They were getting so restless they *needed* something. In my home town I was know as a famous liar, and thought my ability might come in handy."

Slowly the agony disappeared from Morquil's face. "Someday you will understand how much you have done for me, John. You will never regret it!"

The McCarthys remained jovial, and tried to keep up the spirits of the others as the days of loneliness passed.

Philip Jones and his wife were quiet, and waited patiently. Andrew and Emma Smith had taken over the cooking, and served the meals. George and Mary Martin were the youngest couple, and Dick doubted whether either of them were past twenty-one. The others were all nearer thirty. They spent their time side by side, gazing over the sea, perfectly happy in each other's company.

Jerold Brown and Peter Yarbro were constantly fishing, from the collapsible boat, while their wives played cards.

One night they were awakened by brilliant flashes of light. Running to the beach, they watched in amazement.

They appeared like big guns firing just above the surface of the water, a few miles away. While they watched they gradually faded out. It was like a terrific electric storm, and the little party drew close together for comfort.

When the lights faded out entirely, Morquil told them to get some sleep. They would have to move equipment aboard a new ship the following day.

With the first streak of dawn Dick was back at the edge of the beach, straining his eyes into the gloom, but it was almost an hour before any object was visible.

After breakfast the ship was much plainer. They could see a rounded hull, like the top of a huge submarine, above the water. One of the women remarked that she would *stay* on the island before she'd enter an undersea ship. The trip on the Primrose was bad enough, but it wasn't *below* the surface.

Morquil called them within the canvas shelter, as if to make a speech. He held a small ball in one hand, and while they waited for instructions it landed in their midst.

A cloud of yellow vapor burst from the object, and everyone in the party slowly sank to the ground. Morquil joined the others in unconscious stupor; a victim of his own gas.

CHAPTER III

Strange Destination

WHEN Dick opened his eyes, there was a feeling of motion to the bed. The strangeness of the ceiling overhead drew his attention. It was not canvas, but shiny metal, almost purple in tint.

Suddenly he sat up. Dolores lay beside him. As his eyes cleared of the lingering mist, objects in the room became plainer. They were in a luxuriously equipped cabin.

Dolores slowly opened her eyes. A moment later she sat up beside him. Glancing through the porthole, beyond the bed, she turned away with a groan.

"We *are* under water! And deep! I can't see a thing but strange blue light."

When Dick joined her, his forehead puckered in a frown. "No, Dolores. It doesn't look like water, it looks more like—No! *It can't be!*"

For several minutes there was silence while he gazed through the opening. Dolores had lost interest in the outside and was examining the fittings of the cabin. It had everything that could be desired in a first class hotel room, and many little toilet articles besides.

Suddenly Dick turned away. *"It's true!* We're in the air—*or above it!*

Dolores, this ship is an *aircraft!*"

"Never mind, Dick, this room is *beautiful!* Whether we're flying or swimming, this is the nicest room I ever had. It has *everything*, and *look* at the dressing table!"

Dick sat down in amazement, a smile slowly spreading over his face. Dolores was happy—wherever they were. The room was all that mattered. But he couldn't understand why Morquil had gassed them, and put them on board unconscious. *He* would have enjoyed seeing the new ship.

When a knock sounded at the door, Dolores was unpacking her clothes for the first time since they left the Primrose. Turning the knob, Morquil stepped in.

"I'm sorry, Dick, that I had to use gas, but I knew the people would be afraid of boarding this ship. John McCarthy is down in the power room already, examining the machines, but some of the others are upset about the transfer from the island. I hope you don't feel resentful?"

"No, Morquil. We're satisfied. If you don't believe it—look at Dolores. She decided to like this room the minute she saw it, and is unpacking already."

The worried expression disappeared from the strange man's face. "I had the cabins equipped for women, as I know they are particular about such things."

"Would you like to see the ship? It will be your home for a long time, and you might as well get acquainted. I'm sorry that no one but myself understands English, but you will have ample time to learn our language during the voyage. You must speak it fluently by the time we arrive."

As they started out, Dolores dropped the dress she was holding, to join them. Curiosity overcame the desire to straighten out her clothes.

Entering a wide passage, they turned to the right. It ended abruptly in a room with several comfortable chairs. Three tables occupied the center in uneven positions, the underparts filled with metal covered books. Two men of Morquil's race looked up at their approach.

Dick returned their friendly smile. When Dolores smiled they appeared embarrassed; but greatly pleased. Barrow noticed that one of them was examining a book in English; the illustrations seeming to fascinate him.

A narrow passage, beyond the main cabin, led to the control room where three men sat in swivel chairs. The instrument board was a marvel to Dick, and he watched for several minutes. It would require months to understand even a small portion of the gauges.

The ship was built with two decks, and a large hold beneath the lower floor which contained the machinery. The strange men were quartered on the lower level, with the exception of Morquil. His cabin was next to the one occupied by the Barrows. The McCarthys were on the opposite side of the passage, in a room slightly smaller than the one alloted to Dick and his wife.

The quarters of the remainder of the party were smaller, but still quite comfortable; all located farther back on the same passage.

MORQUIL was proud of the ship, and displayed each section with pride. He opened every cupboard door, and showed them through all of the cabins. They were stopped for a while, when they met Mrs. Yarbro, trying to dispel her fear of the strange craft. The others appeared to be taking their new quarters for granted, and settling down for the trip.

The main cabin was toward the front

of the ship, while the dining room was at the rear; the staterooms on the passage between. One stairway led to the lower level, from just back of the control room, another from the dining saloon. A ramp beneath the rear stairway led to the hold of the ship. When they started down, Dolores returned to her cabin. Her interest ended on the upper decks.

Dick spotted John, bending over one of the machines, so engrossed that he didn't hear their approach. One of the crew stood nearby, watching.

When McCarthy saw Barrow, he nearly burst with enthusiasm. "This is the greatest thing I've ever seen! Why, it almost *talks!* Do you know, this little machine actually picks up the orders from the control room, and *adjusts every machine down here!* Darned if I don't think it's got a brain!"

When Morquil led the way toward the front of the hold, John was still engrossed in the apparatus. "He will be a valuable man to you, Dick, and can solve many problems that you would otherwise have to do yourself. He will make an able assistant."

Passing by the heavy machinery, they approached an enclosed section, which appeared to be of recent installation. Stepping through the doorway, Morquil threw a switch which lighted every corner, then watched expectantly as Dick examined the strange objects. It appeared to be a colony of metal beehives, with covered passages between.

"It is our home, Dick. This room contains everything in miniature that you will see when we arrive. Each of the smaller domes house thirty thousand people, the large one three times that number. We are born, live our lives, and die beneath these metal ceilings. It will be your job to care for them.

"Everything beneath these domes is exactly as it is in our cities, except that the machines are dummies. This model room was installed so you could study our civilization during the trip. When you arrive you will be ready to start work.

"You, and you only will have a key. You may bring any member of your party here that you desire, but it is not necessary for them to understand the entire civilization. There are only six cities, including the large one, where you and John McCarthy will be located. The other men will each have one dome under their control.

"It is easy to travel back and forth, and you may gather together at any time, although each of you will have duties in different sections. While you are overseeing the work in the smaller cities John can look after the capitol. Upon your arrival in Yorpun you will take complete charge of all mechanical work. It will be your responsibility from then on."

As Dick slipped the key in his pocket, he felt the weight of a country settle slowly on his shoulders. Two hundred and ten thousand people—entirely dependent upon *his* control of the machines.

Where could this settlement be? They had sailed darn near to the end of the world in the Primrose, and now they were going even farther. From the way the metal domes covered the cities, it might be at the south pole, and still be habitable.

By the time they returned to the main cabin, it was dinner time. It was past mid-day when he regained consciousness, and Dick was hungry.

Mrs. McCarthy was knitting a sweater for her husband, while three of the strange men watched in amazement. Her knitting needles seemed to hold them spellbound. The other members of Dick's party were sitting around try-

ing to decide what to do. But the sound of the dinner gong, made them forget their worries.

Dick had to go down to the hold and call John, who was still watching the master machine. If he hadn't been dragged away, he would have spent the night examining the strange device.

The meal was simple, but they all enjoyed it. It seemed to dispel the gloom from the party, and they appreciated McCarthy's jokes. There were fifteen of Morquil's race in the crew, and all but the men at the controls joined them.

Knives and forks stood at the places set for the passengers, brought from the supplies on the Primrose, but the crew ate with long narrow spoons. Table silver was evidently unknown to this race of people.

After dinner Morquil called them to the main cabin, and for the first time told about the destination. All that had kept them from losing hope long before, was his promise of greater comfort and luxury than they could hope for in their native land.

"I know that some of you resent the fact that you were unconscious while put aboard this ship. But I know you would hesitate to come of your own accord. One woman said that she wouldn't go on an *undersea* ship, and she would be more afraid of this.

"You will be amazed to know that we are now leaving the atmosphere of the earth that you have always known. *Our destination is on a different planet!*"

CHAPTER III

Morquil's Story

FOR a long time there was silence, then Mrs. Jones fainted. McCarthy took it without flinching, and his wife was satisfied if he was. Dick had suspected something almost as strange, and did not seem surprised. Dolores looked at him for guidance. He nodded reassuringly. The others shut their lips tight, feeling that they had been taken prisoner without hope of escape.

After a pause, Morquil continued. Mrs. Jones had recovered her composure and was staring at him with undisguised dislike.

"I'm sorry it had to happen this way, but I would not have been able to take sufficient people if you had known where we were going. Some of you might have come, but I treated every one alike.

"I also was unconscious from the gas, but the crew revived me. I had to look after the loading of the supplies, and have the cabins prepared for you. It was much nicer that way than if you had resisted, and were put on board by force.

"I shall start at the beginning of my story, and let you judge for yourselves as to whether we have done wrong.

"The existance of my world depends on the perfect operation of machines. Even our atmosphere is manufactured and kept at proper temperature within sealed domes, to protect us from the natural gases of the planet. We live on this planet through necessity—*not desire!*"

"Our race landed there very long ago after escaping from a planet that was falling into the sun. Their space ship ran short of fuel within the gravity pull of our present habitation. It was difficult, but they succeeded in constructing gas-proof shelters, and slowly improved conditions for living.

"We never knew what happened to the other space ships from our original planet, but they may be distributed throughout the universe. Your *own* ancestors may be of the same origin as

)rs. The similarity of our forms tends to prove it.

"Eventually metal domes were built, and the race prospered within. But our lives depend on their being kept in perfect repair. Machines were built wbicb do practically all of the work in caring for our wants, and from the first we bave adjusted our own gravity; to live normally under the gigantic pull of the new planet, which to you is Jupiter.

"Through the ages our lives became easier, and required less manual work. Machinery did everytbing we desired. Most of them were automatically repaired and serviced, while the permanent macbines ran on through the ages witbout care. As generation after generation lived and died, under these conditions, we lost most of our former knowledge.

"When one of the atmospheric machines ceased to operate—we *could not repair it!* Instead, one of the other machines had to be speeded up, and the atmospbere pumped into the extra dome.

"At the height of our mecbanical development this space ship was built. Then the race lost interest and were content to live in ease, without attempting to reacb another planet. Three generations ago our people discovered the danger. Even our bodies had deteriorated until we *could not stand hard work.* The machines had begun to break down—we were headed for extinction!

"When I was a young man they succeeded in finishing the equipment on this ship. Three generations had been required to create enough fuel for only *two voyages!*

"I was selected as the man to explore tbe strange world, which we had been studying with the instruments of our ancestors. We had determined your exact mechanical development, and knew that you were capable of furnishing the engineers which meant life or death to our race.

"It is twenty years since I was left on the small island, and the ship returned to Jupiter. At that time we decided the date for this trip, to bring me back. In the meantime I traveled half way around the world in a small metal boat, before being picked up by a tramp steamer, as I dared not land near any civilized country. After I reached a settlement I had to learn your customs and language, and many other things about a completely alien people.

"I was furnished with an ample supply of gold, as we knew it was tbe metal that you valued highest. This purchased many things tbat would otherwise have been impossible to obtain, and also brought me a great deal of trouble. I was robbed of most of the wealtb before I had been in civilization a year. The fact that a great deal was left on the small island is all that made my venture possible.

"I SPENT three years in an institution before they decided that I was a normal human being, and could take care of myself. I dared not tell them that I came from a different planet, or I would have failed in every way. I learned many things about the people of your world, but mainly that gold could buy almost anything.

"I lived for several years, by working at anything that I could obtain, trying to find someone who would finance an expedition to the island. No one would believe me when I said that I knew of a great fortune in gold. I finally found a man who *did* believe me, and he received one half of the gold as reward. It was not until then that I could begin the work that I started out to do, and nearly ten years had passed.

"I planned for several years before I dared try to obtain the people I needed. I studied everything I could about your engineering, and found that it was not of the same type as our own. For this reason I did not want a graduate engineer, as he would have to learn everything all over again in my cities.

"When I advertised for men, and told you of the wonderful mechanical development, it was the truth. I did mislead you to a small extent, in obtaining your promise to come with me, but the existence of my race depended on your work. My people will give you anything you desire if you will help them.

"When we left our cities, we didn't know whether we could even escape from the planet in this ship. There was no opportunity of testing it, until we started on the journey. Even the men at the controls had never handled it. All of their knowledge was obtained by years of practice, sitting in a stationary ship.

"When they left me on the island and returned to the planet, they *hoped* I could accomplish my purpose, hut the chance of success was pitifully small.

"I have never enjoyed the comforts of other members of my race, but have spent my life in an alien universe, carrying around my big head; without friends or companionship. The gravity within our enclosed cities is lower than on your planet, making it easy for us to walk.

"After several years of study and planning, I knew there was only one way of accomplishing what I went after. It is the way I have done it. No one would have believed that I came from a strange planet; they would have thought me out of my mind. If I *had* persuaded them, I could have found no recruits for the work, no matter what I offered. I *know* how anyone feels about leaving their own planet, where they were born and hrought up.

"You will find that the machines need work badly. Some of them are running only because we use several times the normal power to turn them. Our mining machines have not worked for more than a generation, and the mines remain idle. The metal supply is running short.

"The equipment which overcomes gravity, also furnishes us with power. When weights are lifted, with gravity almost eliminated, then allowed to sink with the full pull of Jupiter, it creates enormous amounts of energy for every use.

"It will be months before we reach our cities, and I hope that by that time you will feel satisfied with your forced migration. To my race, it was the only course which would avoid annihilation within a few generations.

"At first it will seem terrible to be shut in beneath a metal cover. But when you become accustomed to it, that feeling disappears. You depend just as much on a ship at sea or a plane in the air, but never think of it in the same way. We *must* trust you, as we will not know whether you are repairing or destroying our machines until we see the results.

"You will be given complete power and can draw upon my people for all of the help you need. You will be even more powerful than the rulers of the domes. My people decided that you deserved this position, long before we attempted to reach the earth and bring you back.

"I came to your country because the mechanical development is greater than in any other nation. You have greater love for engineering, and more of you are employed that way.

"I have told you everything about my home and my people, and leave it up to you as to the way you will act.

We have only done what was necessary for the survival of our race, and hope that you will forgive us for stealing you from your own planet.

"You have complete freedom of the ship, to come and go as you please at any time. You are now considered part of our own population, and we both have the same interests. We hope you enjoy it."

FOR a moment Morquil gazed into the faces of the small gathering of people, then slowly walked from the room. There was complete silence, broken occasionally by a sigh as some thought of home exerted itself. An hour passed and they still had not moved. Each seemed to be waiting for one of the others to break the silence.

Finally Dick got to his feet. His words came slow, as if carefully weighed before using; the others listened intently.

"I know what each of you must be thinking; because I've been thinking the same thoughts. We're all in the same boat, without chance of leaving —headed for *Jupiter!* We have seen the last of the world where we were born. Either we take up our lives in this new existence, or die out here in space—destroying Morquil's race as well as ourselves.

"He says they can not survive without aid. Our own world did not need us, or give us much for our efforts. If it had we would not be on this strange space ship. Morquil hired only people who were willing to leave their homes and friends—and we *applied* for the work. There really is not much that we can complain about.

"For one, I intend to do all that I can to make our future home the greatest civilization in the universe. Perhaps in the future years it will be possible for us to pay a short visit to our former planet. Perhaps our children will follow in our footsteps; enjoying greater honor, comfort, and luxury than they could possibly have had in our own world. I received little from my fellow men, and have *already* received more from Morquil than I ever had before."

As Dick sat down, John McCarthy's voice boomed out. "I'll follow Dick! He's the boss of this party, and if he's satisfied, I am. *Boy!* We sure do go places when we get started!"

The general laugh broke the tension, and each one spoke after a little hesitation. Each man slowly grasped the gigantic task that was facing them, and felt honored as a result.

It was a new world, farther advanced than their former habitation—which needed *them* to care for it. It was a big bite to chew—but they would do it!

Dick remained in his chair long after the others had gone to their cabins. His mind dwelled on the complete happiness and satisfaction that lighted Morquil's face, when informed of their decision. In that moment he was repaid for a lifetime in a strange world, amongst alien people. His return to Jupiter would be triumphal, with the Earth people as his friends; come to save his race from extinction!

Barrow's mind wandered on, to the gigantic task that faced them. His would be the greatest responsibility, as head of all the domes. The other men would have only a single city to care for. The thought of McCarthy as his assistant was comforting; he would be a great help.

The strange race of beings were putting every trust in the earthmen—putting themselves at the mercy of the seven strangers—and Dick knew the men would *earn* that faith!

He jumped when a hand touched his shoulder.

"Dick won't you take your wife to her room—she feels sleepy!"

CHAPTER IV

Voyaging to Another World

DURING each waking period, Barrow spent many hours in the room with the miniature domes. They were beautiful models, which could be opened or moved as desired, by small levers on the foundation. Wires as fine as hairs were strung from one spot to another, while metal the size of thread represented heavy cables.

Slowly, an understanding of the strange civilization formed in Dick's mind, and he drew sectional maps of the location of all mechanical equipment. Other maps pictured the streets, so that it would be easy to reach any desired destination. When this was done, Morquil sent one of his men down to make as many copies as desired. Each engineer was to have a complete set.

The earthmen had learned to keep track of the time according to the system on the ship. Each "lix" included the time spent in sleep as well as one waking period. It was twenty-seven hours in length, but they all thought of if as a day.

Each lix was divided into thirty-six "migs." Each mig being just forty-five minutes in length. They were able to keep track of each mig, by their watches, although the time pieces were useless for any other purpose.

One lix, Dick returned the friendly smile of a member of the crew, and to his amazement the man spoke. "Chicki-boo." For a moment Barrow was stumped, then realized that it must be a greeting.

When he was greeted the same way, by a second and then a third man, he tried to imitate the words. The man from Jupiter was so pleased that he almost danced, then spoke again. "Goot-mordlng."

Dick's jaw almost dropped open; the man was trying to speak *English!*

Suddenly Barrow laughed. Morquil had been instructing his crew in the strange language, as well as telling them to greet the earthmen in their own tongue. He must speak about holding classes to learn the language. They would have to understand it, and the sooner they started the easier it would be.

The following lix, Dick stopped on the ramp to the machinery hold to listen. McCarthy was humming the tune of a song that had been the rage at home, but the words were "chicki-boo —chicki-boo—chicki-boo."

Barrow smiled as he approached, but the big Irishman didn't realize the reason. He was almost bursting with news.

"I've got it, Dick! I've found the key! Don't laugh, but I've discovered the working principle of this little machine, and it will lead to the secret of all others. In a month I'll know how this crate runs."

"Don't worry, I'm not laughing, John. I think it's great that you've got this far. I only wish the others would show as much interest. Not one of them has been down here for more than a few minutes, and they know little more than when we started."

"Aw! Don't take it that way, Dick. It isn't their fault. Didn't you ever see their *wives?* Those women won't let the men out of their sight for three minutes. Your wife and mine are different —they *trust* us! If we tell 'em the ship's okay, it's okay; but *them*—say, they can't tell their wives anything. The women in their families do *all* of the talking."

Dick laughed, but knew that it was close to the truth. The other men in the party *were* tied to their wives' apron strings. Aside from Dolores and Eileen McCarthy, none of the women trusted the space ship. They were afraid it might fly to pieces at any moment, although they had overcome their fear enough to find means of entertainment.

Small devices in the cabin showed miniature movies, with words in the tongue of the dome cities. Discovering this created desire to understand the language, and they eagerly attended the classes.

One lix Dick found Jerold Brown examining a piece of machinery. A few lix later Andrew Smith had joined him. Soon every earthman was spending his time in the machinery hold, with McCarthy acting as instructor. He would accept no excuse for being late at his classes—and they all arrived on time!

WEEKS slipped by as the ship drove on through space. The earthmen learned to admire the men from Jupiter for their constant good-nature, although they were slightly childish.

The crew of engineers were slowly learning the rudiments of Jupiter's science. Barrow through his study of the domes, and McCarthy through study of the machines, far surpassed the others. At times both men spent hours in the model room, at others Dick examined the machines beside the Irishman. They compared notes until each knew the other's findings.

Dick took all of the men into the model room once every third lix, and spent four hours instructing them in the civilization. Each man had his own set of maps, and marked down facts about his future location. Dick copied their notes on a large map, that covered all of the cities. They used numbers to signify different mechanisms, to make it easier to describe equipment that was duplicated in more than one dome.

In a month they were able to carry on light conversation, and from then on mastery of the language was faster. The women far surpassed the men, due to desire for entertainment.

When he was able to question the crew, Dick received a terrible shock. *They knew less about the ship's operation than his own men!* They didn't understand their own equipment!

The people of the domes were content to enjoy the mechanical wonders of their ancestors—w i t h o u t bothering about how they ran. They used equipment for every purpose, without the slightest interest in why it worked. The earthman suddenly realized what a gigantic task they faced. *Seven men*—to rebuild a civilization!

The men at the controls knew what reaction would take place by movement of a lever, but *didn't understand why!* Dick became slightly worried about reaching their destination—it was beyond all reason. Earthmen wouldn't have attempted to operate equipment they knew nothing about, by movement of controls to obtain the proper action.

It was no wonder these people had found it necessary to find engineers to run their machines!

Months slipped by as the ship moved steadily toward the giant planet. Every piece of equipment seemed to be the answer to perfection. This voyage had taught them more about mechanics than was covered in a complete engineering course on earth. It was of a far different kind, with gravity the basis of all operation. Even the space ship employed some of the same power, drawn from the nearest heavy body, then amplified until it reached enor-

mous proportions.*

Peter Yarbro was a practical chemist, and spent many hours trying to analyze the fuel. It was highly inflammable, yet could stand terrific compression without effect. When it was allowed to expand again, it reached the flash point immediately, creating enormous amounts of heavy gas. He believed it might be duplicated from crude oil, properly refined.

When Dick learned that there was a history of the space ship, in the metal books, his curiosity was aroused. He could read the language of the domes slightly, but not enough to study the intricate explanations. It was through these books that the dome men had learned to control the ship, and set the course for any desired planet.

Morquil's aid was enlisted, to translate the text, and he learned some amazing facts. A description of the fuel was given, but the base for manufacture was unknown, being of natural origin on Jupiter. As Morquil read farther and explained sections that Dick couldn't understand, the Earthman felt uneasy.

The crew had abandoned all hope of returning to their home planet, the first time they started from the Earth. They didn't understand what it meant to feel responsible for equipment. They manufactured enough fuel for two trips, according to the rating of consumption in the books—but Dick wondered?

The tanks were filled to capacity before the first trip, and hadn't been tested since. The happy dome people didn't consider that their ancestors might have been mistaken, or that actual operation might vary from the original plan.

FOR the first time in twenty years, the gauges were examined. Barrow and McCarthy crawled through the dust-coated passage beneath the floor of the machinery hold. They found a light switch, but the bulbs were so dust coated that only a faint glow shed on the surrounding metal. They sneezed and coughed, as the dust-laden air filled their lungs.

"Darned if you don't get the craziest ideas, Dick. What good will it do to know how much 'ship juice' there is, anyway? We can't *make* it! This hole wasn't built for self-respecting men to crawl through."

"I don't know, John, but this trip may not be as easy as it appears. They've been driving at full force for months, when it seems to me that less power might carry us when we're not within the pull of some planet. I want to make *sure* that there's plenty of fuel. According to the books, the designers didn't expect the ship to be driven this hard."

John did a little cussing when they located the gauges, and found them so thick with grime that they had to be cleaned. He headed back through the dust for a cloth, with Dick's laugh following. "Alright, alright, but don't rub it in. Just because you happened to be in front of me, and there isn't room to pass, don't give you the right to laugh. Some day you'll be eating your share of dust, and will *I* laugh! I bet that the domes are *all* a mess."

Dick wrote down the reading of each

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* This gravity power was derived from huge weights swung on an axis that could be faced toward any point of the universe, and the slightest pull resulted in force that was exerted on the fuel. The explosive mixture remained at constant pressure, creating a smooth driving medium. Discharge of the fuel under high compression resulted in greater power than could be obtained in any other way.

When the fuel shot through the tubes, it exerted force on the gas cloud that was far above the actual speed of the explosion. The heat of combustion was reduced, and the ship operated without effect from the blasts. The tubes were small, yet the power expended was beyond anything ever accomplished on earth.—Author.

gauge, as John cleaned the surfaces. He couldn't understand the strange numerals, and had to go over them with Morquil. Both men breathed a sigh of relief as they crawled back through the floor of the hold, and dropped the trap door in place.

An hour later Dick began to worry. According to Morquil, the tanks were *less than one-eighth full.* The big-headed man had gone over the figures twice, and was showing signs of agitation as he checked them again at Barrow's request. When he glanced up; Dick knew there was no mistake.

"The fuel *is* low Dick. According to the other trip, the greatest use of power is at the time we approach the planet, to fight the pull of gravity. Our trip from earth is only half completed, with the greatest need of fuel still ahead. You must think my race very stupid not to have thought of it?"

It took Dick a long time to answer. His mind was searching frantically for some solution. It was useless to ask help of the crew—they couldn't even *think* scientifically!

"No, Morquil. I don't think you're stupid, but I do consider your people very foolish. From the appearance of things *we will never reach the domes!*

"Unless something drastic is accomplished, the ship will smash to pieces on your planet. You don't know *anything* about the ship's operation, and we've only studied it for a short time."

They decided to inform the men immediately but say nothing to the women for the present. Within an hour of the discovery, Morquil warned the men at the controls to conserve the power as much as possible.

Every operation of the ship, was dependent on fuel. The generators for heat, light and controls, were turned by discharge through the tubes. At least *one* blast must be fired at *all times* to keep the controls sensitized, and develop power for emergency equipment. The other tubes were silenced.

During the rest migs Dick couldn't sleep, but spent every minute talking to John McCarthy. There *must* be some solution—*and they had to find it!*

CHAPTER V

An Engineer's Mettle

IN the morning the earthmen were called together. They came with smiling faces, which slowly changed to apprehension.

There were many suggestions in as many minutes, but none that gave a possibility of accomplishing the impossible. They had to stretch the fuel—*without visible means of stretching it!*

The women believed the meeting was a routine course in mechanics, and went on enjoying their entertainment. The men explained they were bothered by a knotty question about the machinery to account for their worried concentration. It would have been a terrible handicap if the women discovered the truth.

Three lix passed with little change. The fuel had been cut down for a while, but the ship didn't hold its course. Every tube had to be fired to hold the direct route for Jupiter. They were constantly cutting into the meager supply that remained—*and had to overcome the deficiency!*

Due to the slight conservation of fuel the ship had been operating far below efficiency, and the cold of space began to seep through the walls. This affected the dome people more than the earthmen, and they suffered torture. Any change in temperature was unknown to them, they were chilled at a few degress below normal heat.

Suddenly, during dinner on the third

evening, Peter Yarbro jumped up from the table. The other men fastened eager eyes on his face, while the women watched in amazement.

He started to speak, then remembering the women, sat down rather quietly. "I—I think I've found the answer—to our *problem!* If you will join me in the hold, when we finish eating, I would like to talk it over with you."

Mrs. Yarbro was even more amazed. "Peter! I'm surprised at you. Jumping up from the table so excited, just because you happened to think of the answer to a *problem!* You ought to be ashamed."

In spite of his worries Dick lowered his head to hide the smile. If only Peter's wife knew what that problem was, she might not think it so strange.

Hardly a man touched his food, and as soon as they were out of ear shot of the women, he spoke what was in his mind. The crew heard him at the table and many of them gathered to listen. For the first time in their lives they were worried. Their lives depended on the earthmen before they even *reached* their planet.

Yarbro hesitated. "I'm not so sure now, that I *have* found the answer. When it came to me, I thought it was simple, but now it seems more like a dream.

"Since knowing that the fuel was low I've racked my brain for something that might be used—and it had to be on the ship. Every *other* man was looking for a mechanical answer, and my efforts would be of little use. So I've searched for a chemical.

"*Water* is the only liquid in any quantity. I discarded it so many times that it left a headache, but my search always came back to the same place. It's the only thing we've got.

"All other liquids are in too small amounts, even if they could be used, and the ship is equipped only for chemical fuel—*in liquid form!*

"At dinner when I became so excited, I thought that water would do the trick. Now I don't know. It has oxygen in large amounts, which is vitally needed, but that's the only advantage.

"Even if we dared try, it might injure the tubes. Still I believe it's the only chance of salvation. It's the one substance on board, in any large quantity. What do you think?"

There wasn't a sound as the minutes passed. Each man searched frantically for the slightest hope; searched for the *one* chance in a thousand!

Dick finally broke the silence. "What was *your* plan, Peter? You must have thought of something?"

"No, that's just the trouble. I thought that water might mix with the fuel, even fire with it. It was only a brain storm I'm afraid."

After a moment Dick spoke again. "It *can't* be! Since there is no other substance—*we must use water!* There has to be a way—and *we've got to find it!* We might as well use up the water and die of thirst, as to drift around in space until we starve to death, or die in the dive at Jupiter."

Twice Mrs. Martin came down the ramp to take her husband to bed, but Dick sent her away. The men would stay there until they had found a solution—*they had to!* The fuel was fast disappearing!

MORQUIL still sat in the background. The other men from Jupiter had gone to their quarters. He could offer no suggestion, but listened carefully to every word they spoke. Finally he stood up.

"I hope that you can forgive me. In the last three lixs I have regretted that I ever saw your earth. It were better

that my people die, than for us to carry people from a happy planet to die in space—because of our stupidity. We are no better than children without cares or worries. The men of the crew realized the risk, before they left the domes—but it is not your fault!"

"Aw, sit down you big-headed numbskull!" McCarthy's voice boomed out. "We don't blame *you!* We'll find some way to run this crate, and get there in one piece. You just made us go to work before we expected. Why! A problem like this is *simple* on earth—they'd solve it in *no* time! You just go to bed and stop worrying. We'll have everything fixed by morning."

Morquil's expression changed slightly, and he almost smiled. He started for the ramp as if taking the words literally, but half way up he faced the little gathering again. "Thank you, John. But I haven't forgotten that you were a famous liar in your home town —and you haven't lost your abillty. Thank you anyway, you're very kind."

When McCarthy turned toward the others, he looked rather sheepish. But the forced smiles he received made him feel a lot better.

Hours passed, while each man told everything he had ever known about water. At last Dick stood up . "We've covered every possible reaction, and many that are seemingly impossible, but have overlooked one very vital point that will either help or hinder greatly.

"The fuel is subjected to terrific pressure. Naturally, any water that was used would receive the same treatment. In the compression chamber the pressure rises very fast, which must develop high temperature. The result is that we would not have water—*we'd have steam!* It would be almost *dry steam!*

"Water in the liquid form couldn't discharge oxygen fast enough to affect the fuel, but as steam it might. There is a good chance that steam may even *increase* the explosive power to a point that we can't even imagine. There's only one way to find out—*try it!*

"Every man here will admit that John has the most practical mechanical brain. It will be his job to find a means of injecting the water in the proper amounts. The rest of us can try to find any kinks in the system that he suggests. He knows every piece of equipment on board, and can pick whatever is best suited for the purpose."

As Dick sat down, John got to his feet. "This is one time that I'm ahead of you. While you've been talking I've been planning a way to do just that. There's an extra firing tube that can hold the pressure we want.

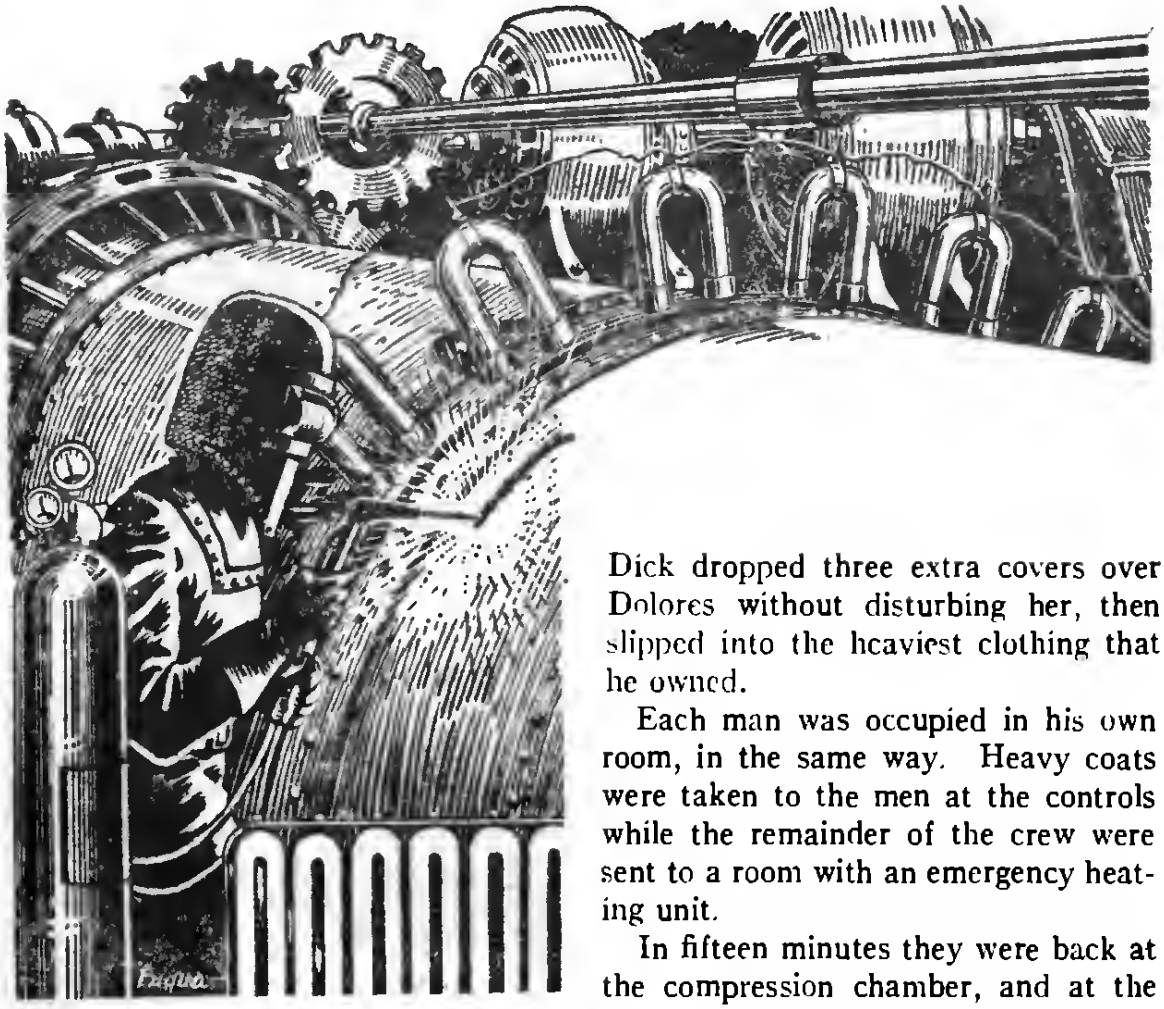
"Fuel for all the blasts is compressed in one c h a m b e r , then discharged through any desired tube. If we put the water under the pressure, wlth the hydraulic system, and let it seep into the chamber at a set rate—*it might work!* Valves can control the steam perfectly, and regulate the flow to whatever is desired.

"The tube will have to be shut off from the fuel tank every few hours, to be filled. Preheating the water will develop steam pressure, and it won't draw enough from the hydraulic system to affect the operatlon of the blasts.

"What do you say, shall we try it? It means shutting off all but the emergency tube for several hours, and it will be *cold!*"

Within five minutes they were hauling the heavy tube from the storage room. In an hour everything was ready to assemble, and each man knew exactly what work he was to do. A pipe line was run from the water tanks, to fill the steam chamber in position.

Dick was building an electric heating unit to encase the entire tube; which



could be regulated for any desired temperature.

HALF of the rest period had passed when the chamber was finished and they were ready to cut an opening in the compression unit. Perspiration poured down the body of every man, but not from the exertion. Each minute that passed ate deeper into the fuel. If water couldn't replace the liquid, they were helpless.

They wanted to install the tube, while the women were asleep. The ship would be too cold for comfort for a long time after the blasts could be started again. When the heating units in the hull were shut off it would become freezing inside.

Men raced through the ship, stopping at their staterooms on the way. Dick dropped three extra covers over Dolores without disturbing her, then slipped into the heaviest clothing that he owned.

Each man was occupied in his own room, in the same way. Heavy coats were taken to the men at the controls while the remainder of the crew were sent to a room with an emergency heating unit.

In fifteen minutes they were back at the compression chamber, and at the touch of a button the blasts were silenced from the control room.

By the time an opening was cut in the heavy tanks, the cold had begun to creep into the ship. The men worked desperately, and for a while perspiration dampened their clothing. Then the chill crept deeper—and they shivered. Their fingers grew numb, and they had to warm them over a small electric unit, but the opening slowly enlarged beneath their torches.

When the tube was fitted into the hole, and the metal began to flow around the edges, even the torches seemed to throw little heat. Dick knew his nose was frosted, and warned the others not to touch their nose or ears. According to John's watch it required three hours to fit the tube in place.

When they rang for the power to be turned on, they waited in vain. When

minutes passed without reaction, they glanced at each other in consternation. Brown and Martin raced up the ramp while the others waited. Within a few minutes the tubes began to fire and warmth slowly drove back the numbing cold.

Water pipes had burst, and they hurried to stop the leaks. The main tanks were uninjured, as the cold hadn't penetrated the big supplies in storage.

Dick suddenly realized that Brown and Martin hadn't returned. When he reached the upper deck all of the women were gathered near the room where the crew had been left. The thermometer was only fifty degrees, even then, and they shivered in heavy coats.

Every dome man was stretched out on the floor! As Dick stepped within, his heart almost stopped beating—but they were only unconscious! His breath escaped in a long sigh, after holding it for almost a minute.

Brown and Martin were trying to revive the prone forms. The control men lay beside the others, brought there by the two earthmen. The eyes of first one then another, slowly opened, and they looked around in amazement. Cold affected them like an anaesthetic, causing complete unconsciousness.

When the ship reached normal warmth, they felt as good as ever. It hadn't been cold enough to freeze them, in their section, and not a man was injured. When they understood what happened, the men hurried back to the controls.

THE heavy coils were soon fastened around the tube, and it was filled through a valve on the upper side. A gauge was set to register the pressure of the vapor within. They decided to raise steam pressure enough to equal the compression of the fuel.

It required fifteen minutes for the water to reach the boiling point, while they nervously held their watches. They could keep track of minutes and hours, although there was no longer day and night in their lives. According to their figures, they now ate dinner at three o'clock in the morning, and went to bed in the early afternoon.

They held their breath when the steam valve was opened. It moved slowly under Dick's fingers, while a thousand questions raced through every mind.

"Would it silence the blasts? Would it put them out of commission permanently? Was that moment, and the turning of that valve, the end of existence for them all?"

Dick glanced at the gauge on the tube, then jerked the valve shut. The pressure was still far below that of the fuel. He turned the heating unit on full, and watched the gauge climb higher. They didn't understand the numerals of the domed cities, but knew the pressure was getting terrifically high.

When he opened the valve again, the steam gauge *did not rise!* It held almost steady. The hiss of escaping steam, sounded through the heavy metal faintly.

The tubes began to fire spasmodically! Dick bit his lips, as he opened the valve a little wider. John McCarthy wiped the sweat from his forehead, as every face turned white as chalk.

They fired evenly again!!! The steam was working through the mixture—*discharging through the blasts!*

They felt their bodies sway under the effects of acceleration and exultance filled them. There was *some* reaction, at least!

Morquil appeared on the ramp, his face lighted by a smile. *"What have you done?* The ship is traveling at *almost twice the speed that it was before!*

Is it all right?"

Dick sat down hard. Not a man in the crowd was able to answer. Success had left them speechless. Barrow was the first to recover his voice.

"Are you *sure?*"

"Yes, Dick! We took three separate observations, and each shows the same result - almost *double* normal speed! Does it mean what you wanted? *Can we reach the domes?*"

"I hope so, Morquil. If the steam has made *that* much difference, we'll get there without trouble. The water must be conserved as much as possible —and hope that it lasts. Whether it increases the power of the fuel, or simply creates an additional body to drive against, is not important. *We're getting there!*"

CHAPTER VI

Jupiter and Trouble!

THE huge ship circled the planet twice, with the instruments adjusted to detect the metal of the domes. They spread over many miles of the surface, yet were like grains of sand on the enormous globe. When the gauges quivered over a section, hidden beneath the mists, every one breathed a sigh of relief.

It would be many hours before the ship was within the cities, but they were *home!* Every earthman had the same feeling. Jupiter was almost as much of a home to them as to the natives, even before they had seen it. They eagerly looked forward to sight of the domes that would be under their care.

John McCarthy entered the control room with a big tray of containers. "Here! It's not liquor, but I'll bet you enjoy it more. There's enough in each of these to *really* quench your thirst. I for one, will enjoy drinking all of the water I want, after five weeks on short rations."

It seemed impossible that the clouds outside could be deadly. They were beautiful in the reflected light of the sun, yet those vapors contained poison that no man could live in. The domes were the only place that life could exist on the strange planet.

As they dropped through the heavy mists, it created a feeling of dense fog. They could see nothing of the surroundings, trusting entirely on the instruments. It was like groping in the dark, yet the earthmen knew it had been done before, and the dome-men showed no fear.

When a slight jar shook the ship, they breathed easier. *It had touched the ground!* They could feel some effect of the heavy gravity, even within the insulated hull. The ship slanted down at a steep angle, sliding forward with its own weight.

The earthmen didn't understand what was happening, but watched the actions of the dome men. They were using a different control board now, beneath the other panel. McCarthy was down in the hold, watching the action of machines that had been idle until now.

When they stopped, the mists disappeared from around them. Lights above outlined a huge metal passage. The ship started forward again and heavy doors slid back at the approach with bright light appearing beyond.

They were looking across sunlit country; the most perfect scene they had ever witnessed. Strange trees, and growth of every description, spread in every direction. When the ship slid into the open, they were beneath one of the domes—enormous beyond their greatest imagination, and exquisitely beautiful.

While they watched spellbound, people started across the fields to greet the expedition. The women were well proportioned, and far different from the

men of the race. Not as tall as the women of earth, or quite as well built, but their heads were much smaller than the men's.

All men were dressed in flowing robes, the women in much less clothing. They wore tight fitting garments, like bathing suits of metallic cloth. They were happy and carefree, seemingly without a worry in their lives. Children came romping across the fields beside their parents.

Minutes slipped by, and the people from earth hadn't moved. Sight of their new home was too wonderful to grasp at once. Instead of the gloomy metal covering they had expected, the curved surface above was finished in blue that resembled clear sky at home —as if they had reached the land of their dreams.

WHEN their minds snapped back to reality, the dome men were being welcomed by friends and relatives. The babble of voices came faintly to the control room, from the power hull.

John McCarthy joined them. When the machines stopped, he came up to find the reason. Now the others watched as he gazed at the beautiful scene for the first time. Their own amazement was reflected in his eyes. When he looked up at the curved dome, his wife slipped her arm around him.

They were disturbed by the crew, returning with their friends to welcome the engineers. The dome people seemed completely happy. They were like children greeting their parents, holding the hands of the earth people and gazing into their faces with adoration. In their minds, the future was secure, and they no longer had a care in the world. Eileen McCarthy was so overwhelmed at the reception that she hugged two of the little women.

It was like a dream to walk across the heavy carpet of moss. There was no grass, but the velvet coat of green was quite similar. The trees were shaped like an inverted bowl, their branches conforming to the curve of the dome above. They were smaller than the trees of earth, with very large leaves.

The eyes of the earth people kept returning to the dome. It was hard to believe that it was not blue sky, except for giant supports that reached from the ground to the metal ceiling, hundreds of feet above.

When Peter Yarbro learned that he was in charge of this agricultural dome, his pleasure knew no bounds. His wife couldn't wait to see the home that had been prepared for them—and waiting almost twenty years.

A circle of buildings formed the foundation of the immense metal ceiling, as well as housing thousands of inhabitants. The back walls of the structures were always blank, toward the vapor beyond the miniature civilization. Each city was a world of its own, with a curved horizon at the top of the buildings.

In Yarbro's dome there were few means of travel, as every inch of soil was cultivated. The dome dwellers were past masters at farming, and loved this work more than any other type of labor. To them, it was a pleasure that vied with amusement machines of other cities.

When Mrs. Yarbro entered her new apartment, thirty stories above the ground, and stepped to one of the balconies, the view was superb. She was not interested in the next dome, but wanted to settle her own domain as soon as possible; completely happy.

The rest of the party entered an open car, mounted on a single track, and started for the next city. Every object that moved was operated by the control

of gravity, and could develop enormous speed and power. It rolled swiftly across the open ground, to enter a tunnel three hundred feet wide, which carried all of the commerce between the cities. When it emerged in the next dome, the imitation sky was the same, but only a small portion of the ground surface was cultivated.

Small buildings dotted the level floor, which Morquil explained were the entrances of the mines, unworked for many years. Jerold Brown and his wife remained in this city, in an apartment as well situated as that of the Yarbro's, in the first dome.

Hours passed as they moved from city to city. When they reached the capitol, only the Barrows, McCarthys and Martins remained of the original fourteen. The others were in their own domes, settling down to the new existence.

Every occupation seemed to have been forgotten by the childish people, to come and welcome the beings from another planet. They lined every inch of the way, many deep.

The main dome was three times the size of the others. Supporting pillars, one hundred feet in diameter, seemed vague where they touched the ceiling above. Parks covered most of the ground, dotted here and there by amusement buildings and theaters.

Cars whizzed back and forth, as people gathered to see the strangers. For the first time in generations the amusement buildings were deserted. Since their arrival, Dick had seen no sign of work, and finally questioned Morquil.

"The people work one mig out of each lix, Dick. It is enough to carry on cultivation of the crops, and keep the amusement buildings running properly."

Barrow was stunned. The working period would have to be increased to three immediately, then four and five. They seemed to think that bringing men from another world would do the work, and were apt to be disappointed when he started issuing orders.

WHEN Dick and his wife were installed in their new home, and the McCarthys settled in a nearby apartment, Morquil hesitated. The Martins were anxious to see their own habitation, and looked at the dome man questioningly.

He finally spoke with hesitation. "I have bad news for you. The Martins will have to occupy an apartment in this city for a while. Their dome is out of order. Trouble developed soon after the ship left here, on this trip, and over a thousand people were killed. Every other city is overcrowded with refugees.

"It started with a strange hanging on top of the dome, which kept increasing. No one knew what the trouble was or how to stop it, so they waited to see what happened. It didn't sound as if the ceiling was going to fall—but as if the hanging came from *outside!* It was several migs before they knew the cause.

"When a large section crashed to the ground, it was a complete surprise, and caught the inhabitants unprepared. Soon the air was mixing with the poison gases from outside. People tried to escape, and most of them did. All except those that fell unconscious from the gas.

"Before the last of them reached the tunnel, green things dropped to the ground, and started after those who remained. They had to close the doors between the cities to keep the creatures from entering this dome. It is the first time that anything has happened to my people, and we don't know what it could be."

For a long time the earthmen re-

mained silent. The troubles of this civilization had been dumped into their laps already—in the form of a terrible calamity. It sounded *almost* as if some kind of life forms had broken through the domes *from the outside!* Perhaps there was more danger than could be imagined. One dome had been injured, if not destroyed, and others might follow!

A meeting of the earthmen was called immediately, much to their surprise. Dick dared not let conditions stay as they were, for fear of future trouble. Action must be taken at once.

"We don't know what we're facing, but the fate of the race as well as our own lives, seem to be in danger. The break in the dome might have been accident, and the moving forms the imagination of fear. But we know that over a thousand people were killed—whatever caused the trouble!"

The men went back to their domes to rest, and plan some means of entering the deserted city, but were disturbed before they had time for sleep.

The agricultural dome had been attacked! The pounding had begun within a short time of their arrival.

One thing was certain, the injured dome had been *attacked!* It was not accident that the metal ceiling fell. *There were living beings in the gases outside their civilization!*

The first dome had been attacked just after the space ship left for the earth, and this attack came just after its return to the domes. There was little doubt that movement of the ship had disturbed the serenity of existence. Perhaps the gas creatures hadn't known what was beneath the metal hives until the ship appeared.

The banging on the agricultural dome, *had to be stopped!* A hole would let in the gas! Rifles, that had been brought back on the ship as curiosities, were given to each earthman. They loaded them carefully while they searched for some means of reaching the trouble.

When the leader of the dome heard what they were planning, he showed them sealed openings to a space between sections of metal, which hadn't been used since the city was built. The dome was constructed in three layers, for insulation, and to give added protection. It was like a maze, to work their way toward the pounding through the network of struts. At times they had to crawl on their hands and knees, at others there were clearly defined passages.

They were afraid, and not ashamed to show it. They were hunting creatures which they knew nothing about —didn't even know whether bullets would affect them! They might face thinking beings, or forms of life that only wanted to search in the domes for food. It was not a pleasant thought.

Every rifle was cocked as they neared the source of the pounding. Every nerve drawn to the finest point.

Suddenly Dick stopped. He was ahead of the others and first to glimpse what they faced. He motioned to use the oxygen masks, as he fastened his own in place.

As they crept closer, light glinted on the giant pointed hammer, operated from beyond the outer layer of metal. It rose and fell at even intervals through the rent in the upper surface. The ram had already crushed through two thicknesses of metal, and was battering at the inner layer.

The inside section was more like glass than metal and dim light passed through, but the outer layers were opaque. When the huge ram disappeared from the glow of light it left a gaping hole where it had been. It was of material they had never seen and

glistened with a brownish hue. It appeared to shorten and expand in diameter, each time it struck the surface.

For a moment they hesitated, trying to decide the best means of attack. Whatever animated the ram was above their vision, and they had to be close to the opening to see it.

Each time the shiny object descended, the dome vibrated beneath their feet. As long as the vibration remained they were safe, but when it felt like a thud—the metal would be cracking!

Thousands of helpless people were depending on the action of earthmen, for their future existence. They seemed to think that it was only necessary to *tell* their troubles to these amazing strangers, to have them solved. Stories about the use of water to drive the space ship, had circulated throughout the cities, crediting the newcomers with superhuman powers.

As the little party crept nearer, they separated, to approach the opening from every direction. Dick was to fire first—if he saw anything to shoot at! It might be a powerful machine, clamped to the outer surface, instead of a being that could be injured. The glass globes of the masks were clouding with moisture, and it was hard to see.

A thud came, that didn't vibrate quite as much, and the men could feel the hair on their necks stiffen. It was now or never, and Dick fired although he was still several feet from the opening. He fired at the topmost section of the ram, hoping that it might stop the hammering for a moment even if it didn't injure the equipment. Two more shots rang out, before the object could deliver another blow.

It was alive! The heavy ram *jumped* from the shock of the bullets, curving convulsively to one side of the opening. Then it drew back out of sight.

CHAPTER VII

Battle with a Monster

MINUTES passed, while the earthmen hardly dared breathe. Their heart beats seemed to almost echo in their breasts. Then the object appeared at the opening, hesitated, and was thrust in!

The hammer was a head!!! It swayed back and forth, like the head of a huge caterpillar, and every gun fired in unison. Shot after shot pumped into the head.

The giant head moved from one side to the other, while two gigantic eyes peered around. It didn't know enough to draw back from the danger zone, but muscular reaction finally moved it out of sight.

Dick crept forward, motioning for the others to wait until he investigated. There was no need for all of them to enter the danger zone.

He turned the flashlight on, that had been strapped to his waist, and played it around the jagged opening, then climbed to the next level and searched again.

When he crawled to the outer surface, the creature was writhing a few feet away. He motioned, and the other men soon joined him, where they could watch the creature.

They were standing almost on the direct center of the dome, where it was almost flat. The flashlights penetrated the mists enough to mark out the shape of the attacker, when they were all centered.

Suddenly they felt sick to their stomachs.

It *was* a caterpillar! As loathsome a creature as they could have imagined with its curled body, and the farthest possible thing from a human being. A form of life that existed in the poison

gases, where men would die within minutes. The muscles of the creature had to be terrifically strong, to move against the gravity of the huge globe.

Even at the center of the dome, they felt less effect of the neutralized gravity of the interior. It required effort to stand on their feet. Some effect of the neutralizers in the giant pillars, which eliminated most of the weight of the dome, enabled them to handle their bodies.

The creature before them was accustomed to normal gravity of the heavy planet, and even the metal of the dome was not beyond the pounding of its hammer. What they had mistaken for a battering ram, was the brown tip of the mammoth insect. From end to end it measured over sixty feet. The men finally turned away in disgust, as it writhed in muscular reaction.

John McCarthy was climbing into the opening behind the other men, when he happened to glance back. His flashlight dimly lighted the spot where the monster had been, and *it was gone!*

He hesitated with one foot in the air, then realized what had happened. The movement of the body had moved it farther and farther from the center of the dome. It had reached a place where the curve was sufficient to let it slide on the smooth metal. A moment later, a slight jar was felt through the entire structure—it had slid from the man made mound, to crash on the ground below. Memory of that sight made a sober return to the interior.

Before they dared rest, metal sheets were carried to the opening and blocked in place. Then dome men welded them to the solid metal. They didn't want to see any of those creatures in the cities!

Twelve hours had passed by the time the opening was sealed, and the earthmen dragged their tired forms through the maze of supports for the last time.

They were almost asleep before they could reach their own apartments, and tumble onto comfortable beds. They had conquered the first problem.

Dick was awakened by an excited man, talking faster than he could understand the new language. When he grasped what the other was saying, he leaped from bed wide awake.

Every dome had been attacked!!! The caterpillars were pounding many spots on each one. They seemed to be trying to get at the creatures that had destroyed one of their number.

IN that moment Dick felt like an old man. He thought of the space ship; the only way of attacking from the outside, and gave that up. There wasn't enough fuel to handle it, and the blasts might injure the metal domes. His mind searched frantically for some way of fighting *all* of the creatures—and knew it couldn't be done.

He was racing across the open ground, while thousands of people gazed at the banging overhead. Suddenly he stopped, then turned back toward his apartment, running just as hard. There was a system of communication between the domes—that *sometimes* worked! It was not efficient, but if he could get in touch with the others immediately, there was *one* chance!

He tried frantically to get a connection, but it wasn't until one of the natives helped with the intricate system of signals, that he heard the voice of Andrew Smith. A few moments later Phillip Jones answered, then Jerold Brown and Peter Yarbro. Each man was given quick, yet explicit, instruction.

When Dick turned away from the phone, John McCarthy entered the room, followed by George Martin. The noise in the city had finally aroused them from their slumber.

John started to smile, but the expression on Barrow's face drove all thought of greeting away.

"*What is it?* I thought the people were doing a day's work—but *you*——!!!" His face turned ashen as he ran to the balcony, George Martin only a step behind after gazing up for a moment, McCarthy turned slowly to face Dick.

"The worms? It sounds like *hundreds of them!* We better work fast, or they'll have the whole roof down around our ears."

"No, John. We can't fight them with guns. *They have attacked every dome on the planet!*"

When full realization came to the big Irishman, he sank slowly into a chair. "Then what? Have you got any plan—or are we helpless?"

"We've got work to do and plenty of it. There's a slight chance of saving the cities. I've already instructed the others."

As the three men raced toward the power plant, Dick explained. John and George were to do the work, while he traveled from dome to dome to make sure the people were prepared, and see that the power plants were used as he intended.

By the time they reached the entrance of the building, John nodded, and Barrow turned back as the other men entered the door. The first dome people that Dick saw were told to remove every one from the buildings, and gather them in the open spaces of the parks. *Leaving no one within any structure!*

The expression on his face scared them even more than the pounding of the worms, and they hurried to obey.

Dick jumped into the nearest ground car. He couldn't be bothered traveling on the railroads. This happened to belong to the assistant head of the dome, whom he dispossessed. It jerked crazily across streets and parks, while he learned to handle the controls.

An hour later Dick was back at the powerhouse in the big dome. Every city was ready. In several places the hammering heads had broken through the outer layers, and were hanging at the translucent inner ceiling. The creatures *had learned how* to break through.

The first worm that attacked, while the space ship was away, either took its time or didn't realize what was beneath the heavy metal. These creatures were working in earnest.

Heavy insulated cables ran from the powerhouse to the nearest metal pillars, where McCarthy and Martin were working desperately to fasten them in place. The booming voice of the Irishman had kept the natives back, although they crowded as close as they dared. They were really afraid, when the hammering grew plainer with each passing minute.

When the cables were fastened, John shouted to Dick, who was waiting in the powerhouse. He pulled a heavy switch, at the end of the wires.

The city was suddenly in complete darkness, then it flashed bright again as power flowed back into the thousands of coils in the ceiling material. Twice more it darkened, when the giant switch was thrown, and the lights came on again. This time it stayed bright.

Dick ran to the doorway, and gazed at dome above. *It was silent!* The people were frightened, and moved restlessly about. Twice more he turned the power into the metal, and after one long darkened period, the city remained bright. *No sound came from the dome!* Either the worms were dead—or frightened away!

Within a week the doors to the deserted city were opened, and the earthmen passed through. When they

glimpsed the interior, they stopped in consternation, then started to laugh.

Huge worms covered the ground, and smaller editions of the same species, crawled around them. *They were using the dome for a hatching place!*

They had only entered it to bring forth their young! It was not *brains* that tempted them to attack the city, but the instinct to find a protected place for their eggs. Since they had broken in, many of the young had hatched, and were crawling around the ground.

Sight of the earthmen seemed to excite their feelings, and several of the creatures started toward them. The men fired carefully, and the forms squirmed on the ground. The ones that came behind stopped, and some of the young tried to feed on the remains of their companions.

The sight was so sickening that the earthmen fired at every living thing they could see. Several of the wounded creatures crawled up the huge pillars, to disappear through the opening above, while the men shot at their disappearing forms. When the last caterpillar lay dead it appeared like a battlefield.

Three days later the gas had been expelled, and the hole in the dome repaired. The population was returning to their homes, burying the carcasses in the fields. The city was livable again, and they knew electric current would stop any future attack of the strange creatures.

TEN years later, Dick Barrow sat on the balcony before his apartment. His son John, eight years old, was playing with Dick McCarthy. While he watched the boys, his mind swung back to the earth the little group had left so many years before.

For three years they had talked of returning to their home planet, and the evening before the conversation reached a climax. They were starting in two months.

It no longer required years to manufacture fuel for one trip. All machinery was working at top efficiency, and they could turn out enough of the liquid in a month, to drive the ship back and forth several times. Crews of workmen had been trained to care for all mechanical equipment, and there was no longer need for the engineers from the earth.

The day the little party (it now consisted of eighteen with the four children), entered the space ship tears rolled down the cheeks of many of the crowd. The dome people had learned to almost worship these members of an alien race, and thought they would never leave. But when they realized that their leaders were dissatisfied, and wanted to return to their native planet, they aided in every way.

The ship was out of port for less than a week when the people became restless. They hardly spoke, even at meal time, and for the first time in ten years there were petty quarrels.

When Barrow called them to the main cabin, they came grudgingly, then slowly the expressions changed. Smiles appeared on their faces, and their heads moved with sheepish nods of assent.

"We're fools, and you all know it. We were happy in the domes, happier than we ever were in our lives before. We didn't appreciate it and longed to return to the earth. We wanted to leave, yet had everything there to live for. We had comfort, every pleasure, and more friends than we can possibly have on our own world. *I feel ashamed!*

"Right now we *wish* that we were back in our own apartments, and might as well admit it. The earth is not what we want, *we want the domes!*

They are *home!!!*

"The best thing for us to do, now that we are on the way to the earth, is establish commerce. We can create friendship between the planets, but we are natives of Jupiter! Our interests will always be with the dome people. We have almost become part of that race, and they have given us everything in return. They even gave us our freedom when we wanted it. *We belong there!*"

TEN years more passed, and John Barrow was beginning to help with his father's work. Vacationing in Jupiter's domes had become so popular on the earth that they were building another city to accommodate the tourist trade. It was the third to be added to the original six. Merchant ships were constantly discharging goods from the earth, and carrying back rare metals.

Space ships from the earth, designed after the original Jupiter ship, were searching the little known planets for minerals. Domes were being built on three of the smaller globes, and pioneering humans migrated to new worlds. There was danger, yes, but also fame and fortune for the hardy people who would inhabit them.

The earth had changed a lot, since the visit of the space ship. They had adopted the principle of controlling gravity, and tremendous structures were the result. New buildings were several times as large as the greatest structure of ten years before. Both planets had benefited from the friendship, and both were happier as a result.

As Dick Barrow's mind ran over these facts, he smiled and spoke aloud to himself. "And all of this in twenty years—it seems incredible!"

"What did you say, dear?" asked Dolores.

Dick smiled as he glanced at her. "It's nothing. I was just thinking. Remember the night you fell in front of my table in the hotel? And I thought it was *accidental*—you scheming golddigger!"

The ruler of the domes ducked when his wife threw her book—but she didn't throw it very hard.

THE END

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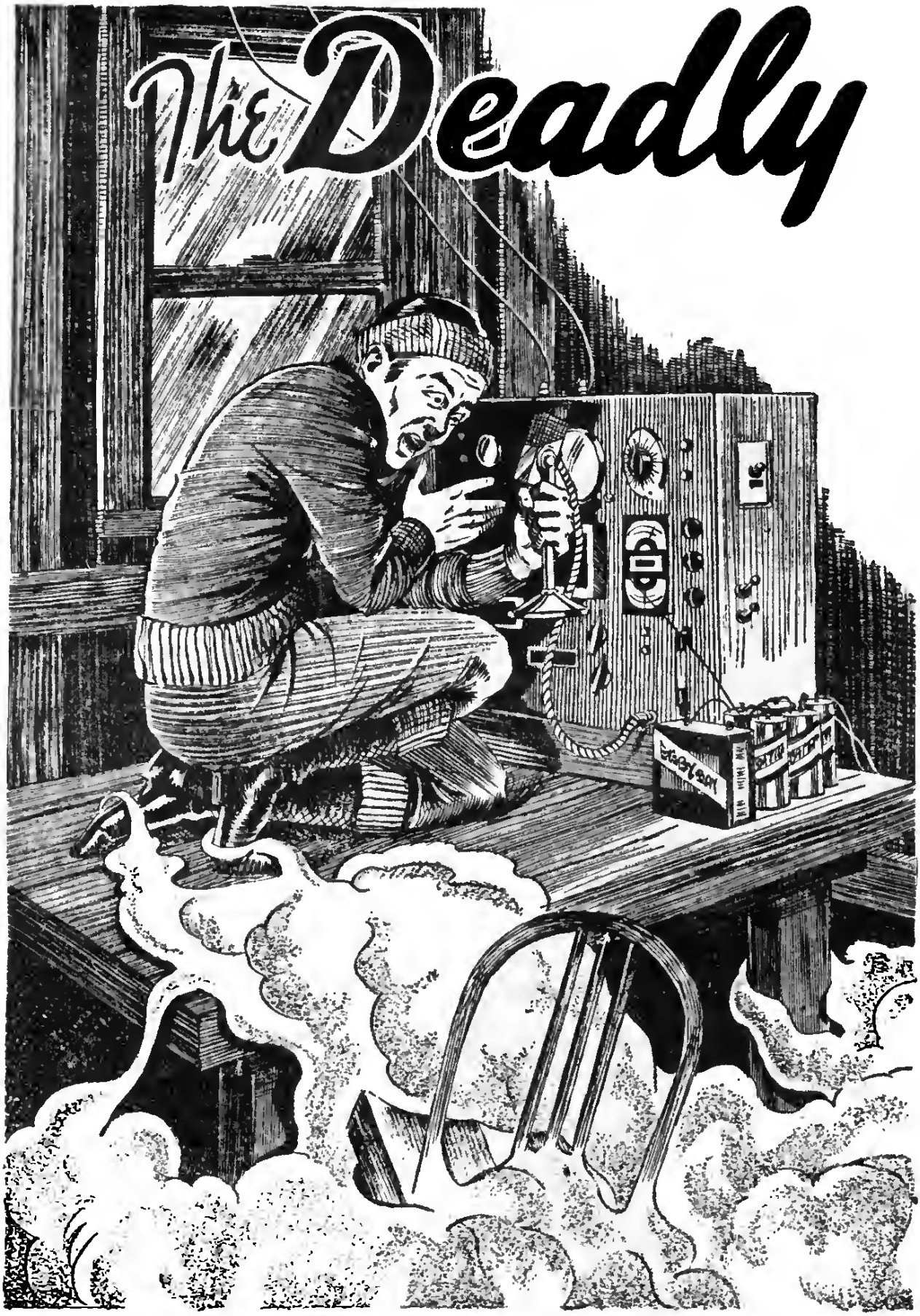

The Deadly

Slime

By Frederic Arnold Kummer, Jr.

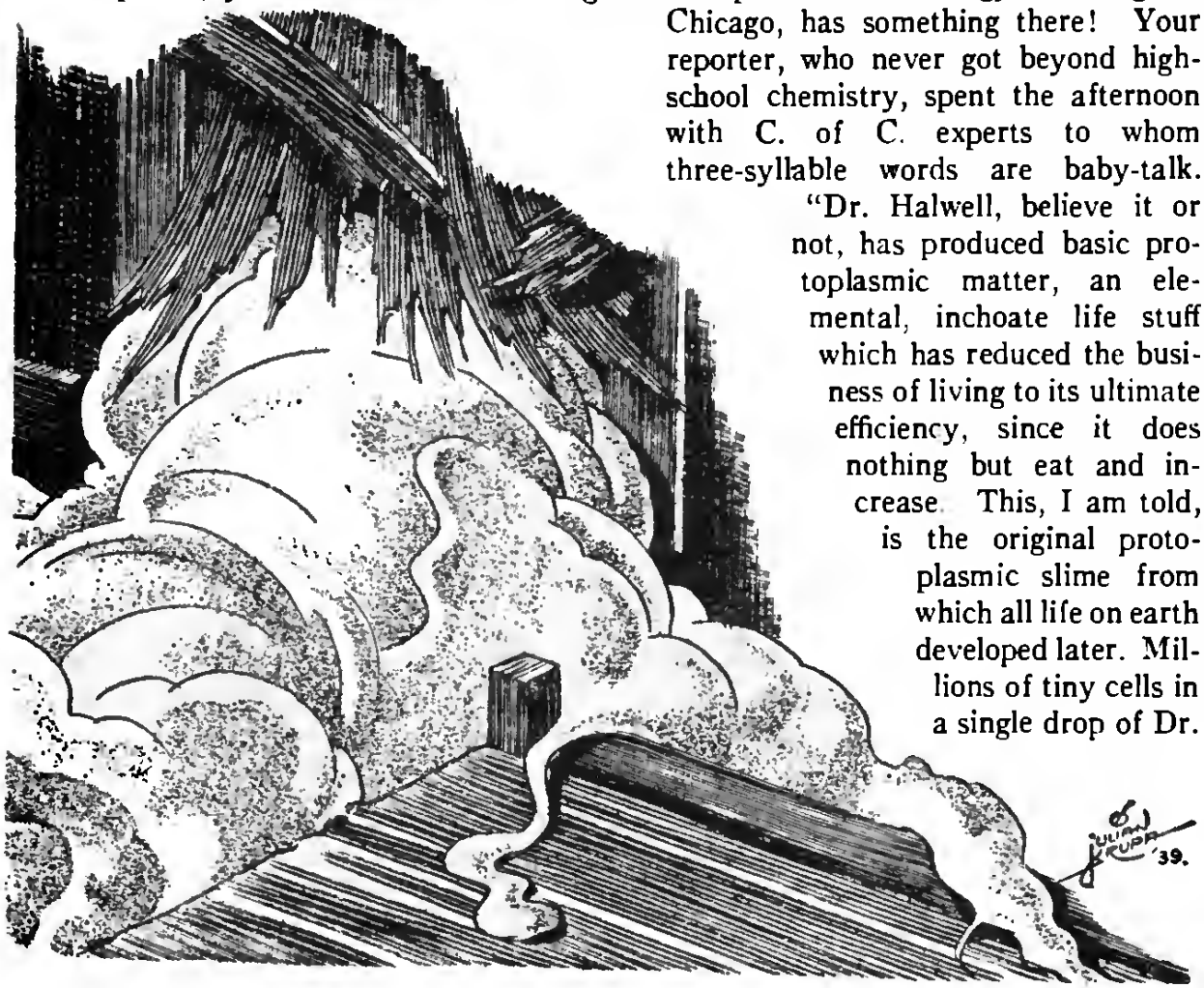
CHAPTER I
The Coming of the Slime

Dr. Robert Halwell loosed upon the earth a deadly flood that could not be stopped, unless . . .

"LADIES and gentlemen. The makers of Wilson's milk of magnesia, that smooth, quick-acting relief for acidity and annoying stomach disorders, bring you Bernie Ballister, the Winchell of the west, with up-to-the-minute news flashes from all over the world and inside information on the headlines of tomorrow. Here he is, ladies and gentlemen, Wilson's radio reporter, your low-down on the high-ups, the one and only Bernie Ballister! Take it away, Bernie!"

"Good evening, world! This is your midwest minute man, raring to go with a redhot scoop for arm-chair scientists here and abroad. Dr. Robert T. Halwell, white-haired, near-sighted, reclusian professor of biology at College of Chicago, has something there! Your reporter, who never got beyond high-school chemistry, spent the afternoon with C. of C. experts to whom three-syllable words are baby-talk.

"Dr. Halwell, believe it or not, has produced basic protoplasmic matter, an elemental, inchoate life stuff which has reduced the business of living to its ultimate efficiency, since it does nothing but eat and increase. This, I am told, is the original protoplasmic slime from which all life on earth developed later. Millions of tiny cells in a single drop of Dr.



Halwell's brain child, each drop capable of absorbing its weight in living tissue, animal or vegetable.

"Translating the C. of C. brain-trusters' high-brow patter, it seems that they have come about as close to basic unicellular life as is possible to obtain. The show they put on for me was worse than a hangover without good old Wilson's m. of m.—pink elephants seem like pets after Dr. Halwell's pureé of protoplasm."

"First the savants filled a copper bowl with odds and ends . . . flowers, twigs, bits of meat, or what'll *you* have, and then, opening a test-tube, placed one drop of their sticky gray slime in the bowl. What happened next would make the Wells boys . . . Orson and H. G. . . . green with envy.

"Before your pop-eyed reporter could finish one cigarette the drop had doubled in size and completely absorbed a blade of grass. In half an hour it was big as a baseball and in another twenty minutes the blob of protoplasm was the size of a man's head, had completely devoured everything in the bowl, and was rearing itself in determined little waves as though trying to escape from the bowl, keep on eating and growing. Just the thing to give your mother-in-law next Christmas!

"HALWELL explains his protoplasm by reference to Carrel's celebrated chicken heart and Dr. Philip R. White's cell culture from a growth on a tobacco plant. Dr. White's culture, the nearest thing to this new protoplasmic organism, was capable, given sufficient nutriment, of increasing ten quintillions in forty weeks, of equalling the size of 400,000 solar systems in one year. A healthy little rascal!

"Dr. Halwell's pride and joy increases at an even greater rate and where the chicken heart and the White culture need to be pampered with tasty tid-bits of yeast and broth, young Proto's insatiable appetite knows no bounds. Quite impartial toward vegetable and animal matter, he just keeps on eating . . . and growing. Specimens of the new protoplasmic prodigy have been forwarded to California by airmail for tests in Professor Alexander Goetz's cyrogenic laboratory to determine the culture's reaction to suspended animation experiments by freezing. All in all it seems that our home-town boys are sneaking up on ye good old secret of life. The stork may yet yield to the test-tube and your correspondent be forced to consult laboratory technicians on the season's crop of blessed events.

"So much for today's science lesson. Professor Dick Donelli, Wilson's own scientist of swing, is champing at the bit. Listen, while he and the boys bring you that madness in melody, that insanity of the ether, 'Lunatics' Lullaby'! As the first sot said to his parched companion, 'I'll be back in a flash with a flask!' Play, maestro! And don't . . .

"Wait a minute, Dick! Here's one that just came in! Flash! San Francisco, California. Interstate Airlines have announced that the Commander, their crack luxury liner, is six hours overdue from Chicago. Fears are expressed that the big stratoship, carrying twelve passengers and a crew of five, may have crashed. Last reports from her radio spoke of encountering severe storms over the Rockies. Interstate officials, however, point out that a forced landing, damaging the liner's radio, may not necessarily be fatal. Rescue planes and forest rangers are already engaged in the search for the missing ship. And now, the 'Lunatics' Lullaby'! Music, maestro!"

"CALLING W3XE. W6QNE calling W3XE! That you, W3XE?

How's everything tonight? The new condenser working okay? Well, maybe you need more wattage. Still, you sound clearer. Things have really been humming up here on Wind River Peak since the plane crash ten days ago. Before then I was about the loneliest trapper in these parts . . . except for my radio pals . . . but since the Commander was lost there've been planes droning overhead day and night, foot parties floundering around in the brush, raising all kinds of a fuss. Hope they don't scare the game away. The trapping season starts in two months and from then on I'll be plenty busy. You fellows'll have to sling the ham by yourself till the season's over but I'll be back on the amateur circuit by spring and hope to make enough out of the furs to buy that new Johnson hook-up.

"Stand by a minute, W3XE. I'm hetrodyning* something fierce. It's that mixer tube again. I'll switch . . . there, that's better. Well, as I was saying, I saw that new Johnson in Lander yesterday when I went in for supplies It's a honey.

"There was a lot of excitement in Lander, too. Guess you read about it in the papers. One of the rangers searching for the Commander stumbled into town, half-nuts. I saw him close up and he looked awful. Clothes torn, bruised, dirty . . . a wreck. I've seen city fellows go to pieces like that in the woods, but never a ranger. Funny, isn't it? Kept muttering about 'the slime'! Lord knows what he meant by that. And when they asked him about Curtis, the other ranger who was with him, this guy just broke down. Shuddering, gibbering . . . plumb nuts. The doctor gabe him a shot of dope, and took him to the hospital. I'd li' to know just what happened to him and his buddy . . .

"Wait a minute, W3XE! Well . . . I'll be damned! Say, the Rockies must be haunted! There's a stampede tearing by my shack . . . jackrabbits, deer, squirrels, chipmunks. Just like they run before a forest fire. I'm standing in the doorway, now, and can see 'em plain! A little honey-bear just ran down the slope not a hundred yards away. Mamma bear and the cubs are right behind him, their tongues hanging out. There's a big rattler, too. The woods are full of animals. If this doesn't beat the Dutch!

"No sign of a fire, either. The night is clear and not a trace of a glare. A forest fire'd be lighting up the sky for miles around. Whatever panicked the game must be close, though, from the way they're running. Stand by a minute W3XE! I'm going to splice in an extension on my mike. I've got a twenty-foot piece of wire here and soon as I get it in I'll be able to take the mike outside with me. This is something big! Stand by . . . I won't be five minutes!

"ALL right, W3XE! Am I coming through okay? Right! Well, while I've been working on the extension, things have quieted down. Not much in the way of stampeding game, though I did hear a crashing down the slope that must have been made by a grizzly or a bull moose. Right now it's like the strip just in front of a forest fire, a sort of no man's land. Well, here we go outside with the mike, W3XE.

"Now you're on the slopes of Wind River Peak. Big trees, fir and pine, heavy underbrush. The shack's to my right and I'm looking up the mountain. Wild country, no roads or trails, and thirty tough miles to Lander. Whatever it was that stampeded those ani-

* A heterodyne is a high-pitched whistle caused by various conditions, in this case obviously by the mixer tube in question being out of phase.—Ed.

mals ought to be coming along soon. I'm wearing my forty-five, just in case. Kinda creepy out, tonight. The moonlight's pale and shimmery and . . . God Almighty!

"Listen, fellow, there's something coming through the trees. Something I've never seen the like of. It looks . . . well, it looks like pictures I've seen of molten lava. It's oozing down the slope, pretty fast, in and out among the trees. This isn't a gag! And I'm not nuts!

"Listen, the stuff is a thick grayish slime, about a foot deep . . . the line of it stretches off to each side until I lose sight of it among the trees. It's a flood . . . a flood of this gray, greasy stuff! No wonder the game hereabouts stampeded! Still, I don't see what harm the ooze can do. It isn't hurting the trees . . . not right away, anyhow. Weeds and underbrush, though, are sort of sucked down, disappear into the slop! Don't like the looks of that. Gosh! If this isn't a nightmare . . .!

"The slime is about twenty yards up the slope from me. It's glistening in the moonlight as it oozes down toward the shack. Just as though somebody had poured a big dipper of gray molasses on the top of the mountain and it was trickling down the sides. The stuff divides at trees and the two blobs join again on the other side. A bunch of holly bushes were just dragged down, went under. I can hear a crashing of trees further up the slope. Maybe the stuff gets through them after all, in time. But that's nonsense. What could this slime do . . .

"God! Call me crazy if you want, W3XE! I . . . I . . . A big timber wolf just came loping up the slope! Mad with fear! Passed within six feet of me! Splashed into that slime before he could stop! Up to his belly in it! Then . . . then . . . it ran up his flanks! Legs seemed to disappear! God, how he howled! Went under and the stuff flowed over him! Just a couple of smothered yelps and . . . and the ooze turned pink where he went under! And's he gone . . . vanished nothing left! That must have been what happened to the other forest ranger . . . and d r o v e his buddy screwy! I'm leaving now, while I can! W6QNE signing off!"

"CQ! CQ! CQ! You still there, W3XE? Listen, this is W6QNE! You . . . you've got to get me help! I know now why that timber wolf ran *up* the slope! My shack is surrounded by the slime! The grade's steeper on each side of me and two streams of the stuff have met below the shack, cutting me off! I'm on an island in a sea of the gray slime! Unless I get help.

"I've locked the door of the shack, stuffed rags under it. Not that I expect it to do much good. Kinda makes you sick to look out the window. Acres of the stuff, far as I can see, livid-like in the moonlight. Reminds you of dirty snow, except that it's greasy, restless. Keeps tossing, writhing, splashing against the walls. It's alive. I know that. Life such as I never want to see again. I . . ."

"It's coming, W3XE! A trickle of the stuff, seeping through a crack in the floor! More and more of it! Other cracks, other threads of it growing into gray puddles! Converging toward me! Is it coincidence . . . or can the slime sense food? Seems to like vegetable or animal matter equally. Only a foot away, now. No second story in this shack. . . . I'm climbing up here on the table where my radio equipment is placed. Safe for the moment. No way to attack the stuff. Bullets can't hurt billions of cells. That's what it is, I'm sure. Protoplasmic cells, maybe. Hell,

I'm no scientist. Whatever it is, it's hungry. . . ."

"God Almighty! The stuff is trying to climb the table legs! It's thick, like a paste, and able to rear itself up in waves! Splashing higher and higher! In another minute it'll. . . . Wave of it . . . oozing over table-top. . . . On arm . . . Oh . . . God. . . . !"

"W6QNE! W6QNE! Where are you! W3XE calling W6QNE. . . . W3XE calling W6QNE! W6QNE! W6QNE!"

CHAPTER II

Liquid Horror

"THERE can be no comparison between this fearless leader, this man who has devoted his entire life to the welfare of the people, this champion of social and economic reform, there seems no comparison, I say, between this valiant warrior and the opposition candidate whose sole claim to fame rests in his ability to. . . ."

"Ladies and gentlemen, we interrupt Senator Shuttleworth's address to bring you further news of the disaster in Wyoming. Of the entire population of Lander, less than four hundred persons are known to have survived. Sweeping down from the mountain slopes with silent deadliness, the grey slime invaded the town in the dead of night, devouring all vegetation, all living matter of every type. It is, scientists believe, a form of protoplasm.

"Eyewitnesses report the scene to have been horrible beyond imagination. Huge waves of the viscous fluid, splashing as high as rooftops, penetrated cracks, no matter how tiny, trickled across floors toward fear-stricken householders and brought them horrible death. Moreover, it is reported that the jelly-like slime is able to climb in tiny streams over walls, up the sides of buildings, thus reaching those who seek safety in heights above its normal level. This is made possible by the fluid's extreme stickiness, which enables it to cling to perpendicular surfaces.

"Today Lander is marked by only a cluster of roofs projecting above the vast expanse of grey slime. The area about the town is still red-tinted from the blood of human and animal life devoured in the attack. Trees, wheat fields, flower gardens, all living matter, have been assimilated by the voracious cellular culture. The growth of the thing is startling . . . it doubles itself in size by at least a hundred percent per day. At last reports the protoplasmic monster was circular in shape, some three feet deep, and ten miles in diameter.

"From Washington we learn that the President has proclaimed a state of national emergency and regular army units are en route to Wyoming. Evacuation of the area about the great growth is being expedited. From abroad come rumors that the League of Nations is considering a universal suspension of trade with the United States, fearing that the protoplasmic culture may be transmitted. . . . Just a moment, please! (Did you get him, Ed? Right. Okay.) Ladies and gentlemen, our mobile units have contacted Dr. Robert T. Halwell, world renowned authority on unicellular organisms, and have prevailed upon him to say a few words in reference to the Wyoming cataclysm. We take you now to the College of Chicago!"

"SPEAKING to you from the biology laboratory of the College of Chicago. We are in the immense workshop of the biology department, surrounded by scientific equipment, watching the score or so of technicians as

t.. , peer into microscopes, test endless vials of culture. The supervisor of these experiments is, of course, Dr. Robert T. Halwell, whose work is too well-known to require an introduction. It is our pleasure to present Dr. Halwell!"

"Er . . . This is a critical moment in the existence of mankind. The unicellular organism responsible for the Wyoming disasters is, I feel certain, the same as that cell culture developed in this laboratory some weeks ago. At that time we discovered an elemental, inchoate life stuff of the most primitive order yet recorded, and sent specimens of it, via air-mail, to California for cyrogenic tests.

"If these vials of culture were aboard the missing Commander, and if, as is believed, the air-liner crashed on Wind River Peak, then the origin of the Wyoming debacle is clear. Our packages torn open in the crash, the culture spilled from broken bottles. No doubt the bodies of the crash victims furnished its first nourishment after which it would have been sufficiently enlarged to absorb surrounding flora, spread to its present proportions.

"If these assumptions are correct, and the Wyoming protoplasmic growth is our own culture greatly enlarged, the danger cannot be overemphasized.

"With most such cellular growth, special feeding is required, but ours, of a more hardy nature, consumes all living matter. It has, of course, no reason, any more than a yeast cell has reason. The only functions of the cells are assimilating nourishment and dividing into two new cells. It is this rate of expansion that makes it so dangerous.

"As an example, let us assume that the growth were to find sufficient food to keep it for two years. If such were possible, which of course it is not, the growth would fill all space in known creation, including every galaxy and distant star. You can see from such an illustration that within a few weeks, unless its destruction is accomplished, our continent, perhaps the entire world, will be engulfed, all living matter consumed. Only then would the growth die . . . of starvation.

"As for means of destroying the protoplasmic organism, there are many, all impractical in view of its enormous and increasing size. Cold, for instance . . . but to freeze an area of eighty or a hundred square miles is obviously impossible. If this were only winter. . . . Acid also, would be efficacious. But by the time sufficient acid were collected, the growth would have expanded to cover all America. Other means seem equally futile.

"However, we here, as well as scientists the world over, are working to discover a way to overcome this dreadful menace, this Frankenstein of our own laboratories. Time is short . . . we have only a few weeks before North America must inevitably be engulfed . . . but God willing we will succeed in our efforts! Thank you! Good night!"

"LADIES and gentlemen, A. B. C. has brought you a special broadcast by Dr. R. T. Halwell, professor of biology at the College of Chicago. We now return you to our studio."

". . . the people of our great and glorious country! I thank you!"

"Thank you, Senator Shuttleworth. You have been listening to an address by the honorable George T. Shuttleworth, United States Senator from Illinois who has spoken to you on 'Leadership and the Nation.' Political views expressed over these stations do not necessarily reflect the policies of the American Broadcasting Company but are part of our program to give you complete coverage of national issues.

"And now, ladies and gentlemen, in pursuance of our policy of hringing you news of vital importance, we take you to Wyoming, near the stricken town of Lander, where Charles R. Kammerman, A. B. C.'s ace commentator, will hring you another of his graphic eye-witness pictures of the protoplasmic menace which threatens the existence of our nation. We wish to extend our thanks to A. J. Cohn and Company, makers of Mystic Mascara, whose courtesy in relinquishing radio time makes this broadcast possihle. The next voice you will hear will be that of Charles R. Kammerman."

"GOOD afternoon, everyone. This is Charles R. Kammerman, speaking to you from an A. B. C. autogiro high ahove the slime-engulfed areas of central Wyoming. Below our plane a gripping and awful spectacle is visible. One week ago this was a typical section of plateau country . . . rocky, hilly, dotted with farms and villages. Today . . . how can one describe it?

"Never before on earth has such a sight been seen. A writhing, twisting sea of protoplasmic life, spreading with inexorahle speed. Trees, vegetation, crops of wheat and rye . . . all have disappeared as the hungry cells devour living matter. Eat and divide . . . eat and divide, they know no other rule. Incalculahle numbers of cells, united to form this swirling sea of slime. Those on the outskirts, hungrily absorhing all in their path until swept hack into the center of the mass as others push by them to the feeding ground on the edges. They move, of course, hy undulation.

"Here and there above the grey mass, hattered houses, barns and silos are visihle, many of them knocked aslant hy the waves of life stuff. The surface of the cellular flood is dotted with timber, paper, rags of cloth . . . all inamimate things which it cannot assimilate. About the edges of the grey slime I can see tiny dots . . . people. Crowds of curiosity seekers, reporters, scientists, all kept back hy national guardsmen. Trucks are husy evacuating refugees from villages about the grey sea.

"I have just spoken to my pilot and he has agreed to bring the gyro down to enahle me to give you a closer picture of this disaster. We are going down. A thousand feet, five hundred . . . all right, Dave!

"We are now hovering above the edge of the engulfed area. It is fantastic, incredible. To me the slime seems more than just a grey jelly. There is ahout it a sentient, evil life. One might almost say an air of relentlessness, of overpowering determination. The fringe of spectators in front of it are constantly moving hack as the grey tide surges forward.

"The slime immediately below me is rolling into a field of hright green wheat. As it advances, we can see the stalks project for a few moments above the stuff, then melt into it as the grey wave takes on a greenish hue. Trees remain standing longer, hut sooner or later topple into the viscid fluid, their trunks eaten through.

"OVER on our right, a stream of the slime has extended into a small brook. It seems to welcome the water rather than dislike it. Almost before you can realize it, the stream is sucked dry, covered completely. Beyond the stream lies a farmhouse. I can see a man and woman loading furniture onto a truck. Now several national guardsmen are motioning to them to leave. The grey flood is coming nearer. The man climbs aboard the truck. The woman seems to be crying. She has a

child's doll in her hand. Now the truck drives off. The national guardsmen move backwards as the slime sweeps toward the house. I . . .

"One of the militiamen has slipped, fallen down! Before he can scramble to his feet a grey ribbon writhes toward him! Like a snake! It touches his hand, grows! He's trying to brush it off! Grey spots on his neck, his head! Now . . . Good God! A shapeless figure, covered with slime! He's down! More streams of protoplasm! A khaki uniform floating on a pool of red jelly! Horrible! I . . . I . . .

"What's that? Okay, Major Earle! Right! Right! Ladies and gentlemen, I have just been informed via short wave that a fleet of a thousand army bombers is about to attack the protoplasmic sea. We will be obliged to retire a mile or so from the edge of the grey slime but from our aerial post we will be able to bring you a word picture of the attack. God grant that it is successful!

"All right. We're heading away from the slime area now. We . . . Here come the army planes! They're flying low, in close formation. It's a staggering sight. The sky is dark with them . . . heavy bombers, light bombers, attack planes. They blanket the entire sea of slime. No doubt you can hear the tremendous roar set up by their motors. Now they're diving . . . black objects falling. Flash . . . smoke . . . inferno. . . . Steady, Dave! For God's sake turn . . . ! Ah!

"LADIES and gentlemen, the attack is ended! No need for me to describe the noise. Even without radios it must have been heard for miles. Up here we were tossed about like a canoe in a hurricane. Thought for a moment we were gone. Shock after shock, deafening, as two million pounds of high explosive churned up the protoplasm. The whole area is blanketed with smoke. As soon as it blows away. . . .

"Good Lord! I . . . I . . . I don't know how to describe it. First of all the attack has failed. Definitely. The cells are still horribly alive, unharmed by the concussion. As well bomb Lake Michigan. But . . . it was the force of the explosion, I'm sure! The grey slime has almost doubled its area! Where we were several miles from its fringes a moment ago; we are now well over it.

"The explosions of the bombs have flung it outward in an opaque tidal wave, to engulf spectators, refugees, guardsmen, all those who surrounded it. The sight is ghastly. Struggling figures covered with the sticky fluid, disappear one by one. Great red patches in the grey. Blobs of it, hurled out onto trees, fields, are growing rapidly and must soon meet the parent body.

"As far as we can see in all directions there is only the glistening expanse of slime. It must be all of five hundred square miles in area. Below, the work of destruction goes on. I can see a child, perched on a roof-top. Streams of slime oozing up the slanting roof. The boy is crying, waving to us to help him. We can do nothing! Grey tentacles creeping higher.

"Nothing we can do!

"My God, doesn't he realize we're helpless! If only he'd stop waving to us! We're helpless, don't you see, kid! *Helpless!* HELPL . . ."

"LADIES and gentlemen, you have been listening to Charley R. Kammerman bringing you an eyewitness account of the Wyoming disaster. We have several bulletins just received.

"Washington. All government agen-

cies have been enlisted in the fight against protoplasm, the nation's resources marshaled for evacuation and measures designed to check the cellular growth.

"Chicago. Dr. R. T. Halwell of the College of Chicago has made tests with specimens of the culture and finds that it can float on sea water, drawing sustenance from marine life. Thus the entire world may be menaced should the so-called 'slime' reach the ocean. Scientists of other nations, aware of their peril, are joining in the struggle. Dr. Halwell is still under police protection to guard against attacks by grief-stricken persons who blame him for this cataclysm.

"These bulletins have come to you from the Press Radio Bureau. For further details read your local paper.

"It is now our pleasure to present the Canterbury String Quartet. As bulletins come in, however, we will interrupt regularly scheduled programs to keep you informed of events in the west. The Canterbury String Quartet's first selection will be excerpts from 'The Afternoon of a Faun' by Debussy. This work best exemplifies the great French composer's skillful use of the flutes. . . ."

CHAPTER III

A Hopeless Battle

"GOOD evening, everybody. We are speaking to you from central Wyoming, near the edge of the sea of slime. On all sides busy men, thousands of them, are preparing for what may be mankind's last effort against the destructive, voracious cells. Already the slime area covers some ten thousands square miles, or nearly one tenth of the total area of Wyoming. At its terrifying rate of increase the growth, unless checked, will inside of a week cover all of the western states. Already some twenty-five thousand persons have lost their lives, thousands more are homeless, and property damage, crop destruction are well-nigh incalculable.

"Here, tonight we are standing two miles from the on-coming sea of slime. It glistens lividly in the light of our great arcs. Between this point and the edge of the protoplasmic growth heavy oil trucks are grinding back and forth, spraying the ground, the trees, the houses, with highly Inflammable naphtha and gasoline compounds. A belt half a mile wide is being created, stretching for hundreds of miles to completely encircle the cellular culture.

"It is our hope that when ignited it will check the advance of the protoplasm or at least create a barren stretch to starve it to death. All oil companies of the nation have united in this vast effort, donating millions of gallons of oil to create this fire belt.

"Over to my left I see Charles B. Stromberg, president of Columbia Oil, talking to Dr. Halwell, discoverer of the protoplasmic culture. Dr. Halwell looks very tired. Although it is not generally known, he suffers from cancer of the stomach and his ailment, coupled with days of unremitting toil, have taken a fearful toll. I'll see if I can get him to say a few words to us.

"Dr Halwell! Just a word! Thanks! Here we are! Ladies and gentlemen, Dr. Robert Halwell!"

"MY friends, there is little I can say. You and I both know the rate of increase of such growths. This is our final effort. If the ring of fire does not check it, there is no hope. It has been a tremendous undertaking to encircle ten thousand square miles with inflammable substances. There will be

no chance to do so again. Within two days, half a million square miles will be destroyed. I pray that . . . Yes, Major! Coming!"

"That was Dr. Halwell speaking. He has been called away by Major Earle, army engineer supervising operations. I think . . . I think they are about ready to ignite the oil. The slime is quite near the fire belt, now. Yes! Major Earle is speaking into a short wave set notifying the other units at the various points about the protoplasm. It's coming, now! Dr. Halwell is bending down to light the magnesium flare. He's striking the match! His hands tremble. White fire is racing along the train to the pools of oil beyond. In another minute. . . .

"What a stupendous spectacle! As if by magic a roaring wall of flame has sprung into being about the sea of slime! Even here, half a mile away, the heat is terrific! The great searchlights are dimmed by the glare and the writhing stretches of protoplasm glow with a ruddy reflection! Miles of it, a gargantuan ring of fire leaping toward the sky!

"The on-coming cellular growth is close now. Streams of it are touching the flames, hissing. There's a curious acrid smell in the air and columns of white smoke. The protoplasm is coming on in great waves, meeting instant destruction as it encounters that terrible heat. It's swirling about like a beast at bay! We've won! It can't get through! Mankind saved! The fluid can't . . .

"Wait a moment! No! It's impossible! But . . . But . . . ! The fire is beginning to die down! The waves of f l u i d are smothering the flames! Slowly, relentlessly, but inexorably. Tons of the stuff, hundreds, thousands of tons, are being destroyed by the flames but it keeps on coming! Smothering the blazing oil! The slime is halfway across the belt of fire now. The crews here are trying to pump more oil on the flames but it's useless.

"Dr. Halwell and Major Earle are standing there watching. The doctor looks like a living death's head. This seems to be the end for humanity. The last little strip of flame is hissing out now. No time to make another effort like this; the grey sea of slime will be too big before it can be attempted. Unless a miracle occurs the world is doomed!

"I'm moving the mike nearer to Dr. Halwell and Major Earle. They look like men condemned. They are. We, all humanity, are faced with death. Major Earle is staring fixedly at the advancing wave of grey liquid, chewing at the stem of an unlit pipe. Dr. Halwell is writing furiously in a small notebook. Notes, perhaps. Little hope in research, I'm afraid. Time is too short. We . . . Stand by for just a moment, please.

"Yes. Yes. But . . . As you wish, sir. Ladies and gentlemen, Dr. Halwell has just placed in my personal care his sealed notebook with instructions that it be opened forty-eight hours hence. I do not know what he means by that. Now he is walking toward the sea of protoplasm. Can he . . . ? Dr. Halwell! *Dr. Halwell!* Stop him, somebody! He going to . . . !

"SEVERAL of the crew here are rushing down to stop him. They . . . no, he's started to run! Good God! He . . . he's committing s u i c i d e ! Throwing himself into the slime! I can see him clearly in the floodlights. Head and shoulders alone visible! Grey growths . . . a struggle! He's gone!

"So Dr. Halwell, whose genius unwittingly inflicted the world with this curse, has ended his life. Grief-stricken

by the thought of the misery he had caused, he felt he could not see the holocaust of which he was the author. May his soul rest in peace!

"The men employed in creating the ring of fire are retreating. In a moment we must sign off to remove our equipment from the path of the advancing torrent of protoplasm. You have heard what may be man's last effort to check the tide of cell life, heard its failure. The attitude here is one of hopelessness. From now on we must pray for divine intervention to save us from being destroyed by the deadly primal life. This brings to a close our broadcast from Wyoming. Charles Hansen speaking. We now return you to Chicago."

CHAPTER IV

Why Did Halwell Commit Suicide?

"WHEN you hear the musical note it will be exactly 8:15 P. M. Central Standard Time. 8:15! We now bring you the latest bulletins on the protoplasmic growth. Since the futile ring of fire attempt Friday night, the slime area has increased to vast proportions, including parts of Idaho, Utah, and Colorado. Refugees are crowding eastward and already food shortage is felt. No means have yet been found for halting the cell growth. Experts estimate the entire United States will be covered within two weeks.

"Flight to other portions of the globe continues. Nothing can stop the increase of the cells. Mass hysteria reigns. Mobs, violence, looting are prevalent. Throughout the nation industry is at a standstill and many persons are turning to unbridled license, others to religious consolation. Suicides increase as the fate of humanity becomes more and more evident. The national Emergency Council begs that we restrain such emotional outbreaks and carry on with our daily tasks. Order must be maintained while we carry on the fight, futile as it may seem.

"In accordance with this request A. B. C. continues with its regularly scheduled programs and hopes they may serve to keep your mind from the impending disaster. We now bring you episode forty-three of "Jim and Joan," sent to you through the courtesy of Noxcol, that speedy relief for colds and coughs. Jim, you will remember, was talking to Joan on Ma Weston's front porch. . . .

"Ladies and gentlemen, we interrupt all programs to take you to Salt Lake City. Startling developments have occurred in the protoplasmic inundation which may be of importance to all humanity. Take it away, Salt Lake City!"

"CHARLES HANSEN speaking to you from Salt Lake City. We are standing on the outskirts of the city, on a slight rise of ground overlooking the interminable grey stretches of slime, glistening in the light of floodlights. Behind us they are still evacuating the state capital, rows of trucks rumbling through the streets with loads of goods of every sort. In the direction of the mighty mass of cells, however, lies hope.

"With breath-taking suddenness strange growths have appeared on the sea of slime. We can see them from here, great yellowish putrifying patches of scum. Their odor is one of decay. A white milky fluid oozes from them, spreading over the jelly-like protoplasm. The entire mass of slime seems . . . how can I describe it . . . more passive. No swirling hungry waves as before. Reports from other outposts indicate that these yellow patches are appearing in profusion all over the great grey sea.

"As I watch the new growths spread-

ing like oil on water, I cannot dispell the impression that some of the protoplasmic cells have turned against the parent body, are attacking it. They are like great sores, huge splotches of infection, spreading more swiftly than even the protoplasmic organism itself.

"While I have been speaking, I have had my eyes on a new yellow patch. It is growing with incredible speed, forming a pulpy mass on the glistening expanse of slime. What all this means, I am unable to say, but we here are extremely excited. It may be a parasite of some sort, in which case there is hope for humanity. On the other hand it may be an even more virulent growth. If only that great expert on protoplasm, Dr. Halwell . . .

"And that reminds me. Just prior to his death the doctor handed me an envelope to be opened forty-eight hours after his demise. Though it lacks some fifty-five minutes of the specified time, I am, in view of these strange new growths, going to open it in hopes that it may shed some light upon them. One moment, please.

"Here we are. The notes are a hasty scrawl, written on the night we attempted to isolate the cellular organism with fire. I shall read them verbatim. Quoting now Dr. Halwell:

"'AS I write these words I am witnessing man's stupendous failure to overcome the rampant protoplasmic cells with fire. Hope is now almost completely gone. We have no time to make other efforts. The cells multiply too rapidly. One chance alone remains.

"'As is well known, this inchoate mass is primal life, the culture which, formed chemically, perhaps, on the muddy sea-floor millions of years ago, evolved into lower life of the jelly-fish, mussel type and thence by various stages into man. Something, however, must have kept the protoplasm in check in those days. Otherwise, finding ample sustenance in early types of flora, it would have covered the entire earth and died of starvation.

"'It has always been nature's rule to provide a natural enemy for all forms of life so that no one type may predominate. But what of this primal slime? There was no other animal life to prey upon it, yet it was kept within bounds. There can be but one answer . . . that conflict existed among the cells themselves, that parasitic growths fed upon the primal life.

"'For weeks I have sought a parasite for pure protoplasm. A moment ago a twinge of pain from my stomach brought me the solution. I am suffering from Encephaloid or soft cancer. At best I have only a few months to live. And cancer is a parasitic cellular growth. Bodily cells rising in revolt, fattening off of the rest of the cells of the body, inciting similar revolts in the form of secondary growths throughout the system. Theoretically, if vital organs were not destroyed, bringing death, the cancerous cells would spread, crowding out, destroying all normal cells until the body was one great mass of cancerous growth which, lacking further nourishment from normal cells, would then die of starvation. Why not do the same with the protoplasmic mass? *

---

* Halwell's question is logical. Cancer has been transferred from one experimental animal to another by introduction of diseased tissue. Protoplasmic cells do not digest their nourishment. They absorb it cell by cell. Moreover, the swirling motion of the slime would spread such diseased culture rapidly throughout the entire mass. Lacking human functions such as the cleansing blood-stream, the elimination of poisons by corpuscles or phagocytes, cancerous growth among protoplasmic cells should be extremely rapid. Far more rapid than the multiplication of the life cells themselves. Once the parasitic cancer growths began to feed upon the protoplasm, they must inevitably bring about its destruction.—Ed.

" 'We must fight cells with cells. But to wait, produce cancer culture in laboratories, means a loss of time, and every moment is precious. Even a day's wait would mean millions of dollars worth of destruction, thousands of lives . . . would increase the size of the vast desert which will be revealed when the sea of protoplasm is finally destroyed. Two days at least for the parasitic cells to start work, weeks before they finally devour all the life cells and die themselves of starvation.

" 'The work of disinfecting the putrifying mass of cancerous growth will be unpleasant but not overly dangerous. All this, however, is in the future. Right now time is short. We must introduce cancer cells into the protoplasm . . . at once, before more homes and crops are destroyed. What better way than to offer my own cachexious body to overcome the horror I have brought upon the world? Halwell.'

"THAT, listeners, is Dr. Halwell's last message. We . . . I . . . it is difficult to put into words the emotion called up by his great dramatic sacrifice. Surely, no more splendid man of science has ever . . . Wait! Just a moment, please! Something is happening . . .

"I don't know just what it is. There is a rifle fire in the city behind me. I hope it's not another outbreak of looting . . . No! The national guards are firing volleys into the air! It's a celebration of some sort.

"Crowds of refugees, halted in their flight, stand dazed, unable to comprehend. Psalms by the devout Mormons . . . joyous shouts . . . The look on these people's faces! I don't understand . . .

"Hey, Ed, what's it all about! Why are they . . . What! You say . . .!

"Ladies and gentlemen, Dr. Halwell's gallant sacrifice has not been in vain! We have just learned that the protoplasm has advanced only several inches in the past hour! From other points along the edge of the engulfed area we hear that it has made absolutely no further progress! The yellow cancer cells are multiplying with tremendous rapidity everywhere, destroying their host, the immense mass of grey life cells!

"This . . . this is the greatest moment in history! Earth, humanity, saved! The protoplasmic cells stopped. Earth saved! *Saved!*

"It . . . At such a time I find it hard to carry on. I . . . I'm sure you will pardon me for a moment if I take time out and . . . and pause for station identification This is the American Broadcasting Company."

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THE CITY THAT

The artificial coral made a sensational and lovely building material. Scully visioned great wealth as he forced Cort Hardin to devise new uses for it.

CHAPTER I
The Coral Machine

A STRANGE sense of warning plucked at Scully's sleeve as he shook hands with Cort Hardin on the dock before the latter's island home. Hardin's wife stood beside him. Both were smiling, and obviously excited at the visit of an American down here at the bottom of the Pacific; but there was an unmistakable expression of fear or suspicion on the faces of both.

Over the roar of the departing speedboat, Scully's voice was raised in greeting: "Well, it ain't every day you run into an American down here, is it? A team of horses couldn't keep me away when they told me there was a countryman of mine and his wife on the other side of the island."

"Glad you came," Hardin smiled, but his eyes told a different story. "Helen and I haven't seen a white man in ten months!" His arm slipped about the slim waist of his young wife; ordinary affection it looked like . . . and yet Paul Scully, who knew black men and

WALKED

BY ED EARL REPP

white, felt certain it was meant to reassure her, to tell her not to worry. Then he shook off the feeling.

"They tell me you're an inventor or something," he grinned. "You wouldn't be testing the old theory about the man that builds a better mousetrap, would you?"

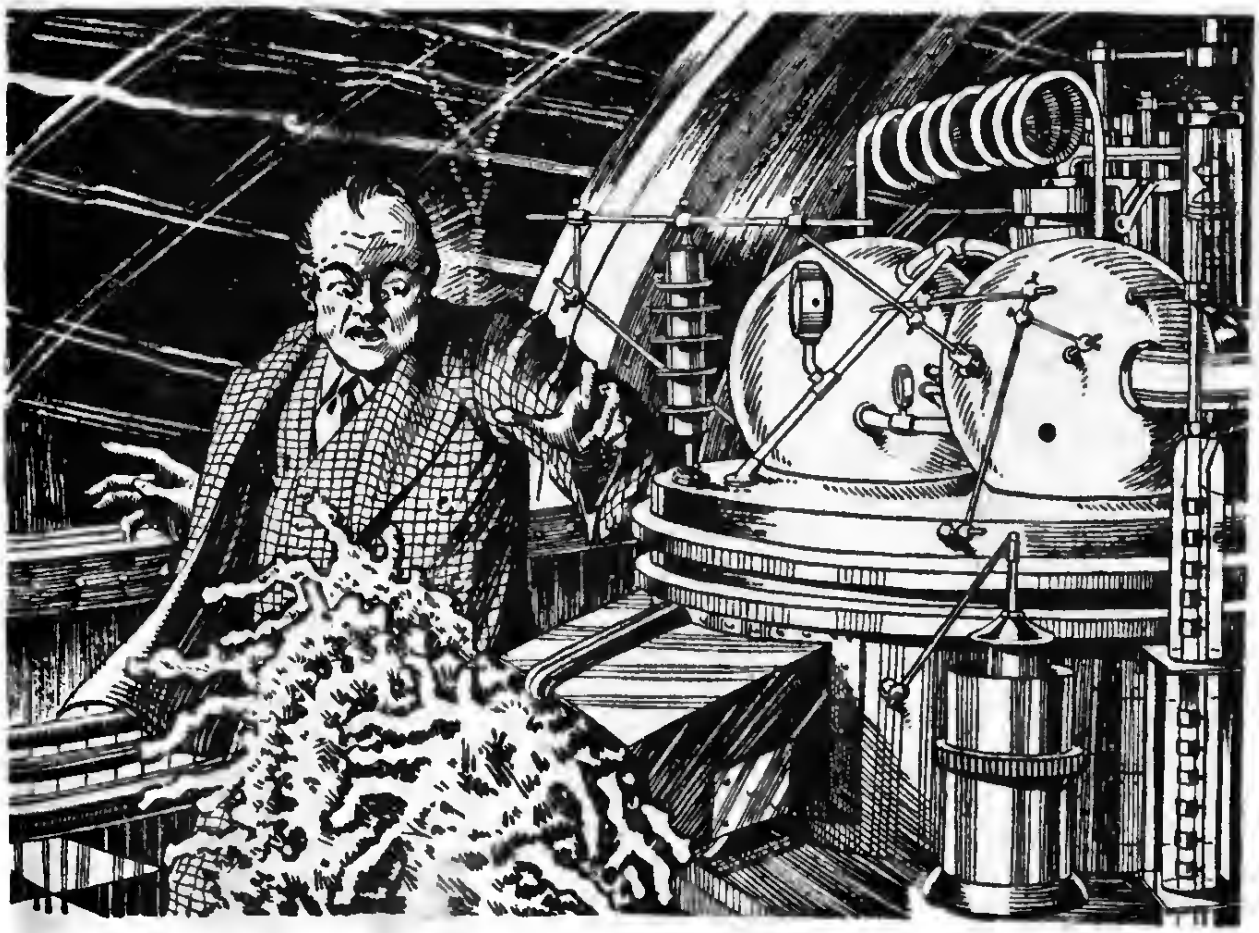
Hardin laughed. "Hardly that," he assured the pearl trader. "But you can't very well study coral in the States, you know."

Scully's fat, sweaty face puckered disdainfully. "Seems to me nature's got coral pretty well in hand herself," he snorted. "You trying to develop some new species or something?" His thick lips were contemptuous; he had his opinion about the half-crazed naturalists he had run across wasting their lives in the study of polyps or rotifers that weren't worth a tinker's dam.

The pretty brunette who was the young naturalist's wife came to his defense. "Cort can show you things in his laboratory that couldn't be produced naturally in two hundred years!" she said enthusiastically. "Why, he can grow a foot of coral in ten minutes!"

Hardin laughed and winked at Scully. "The enthusiasm of the very young," he scoffed. "Come on up. I'll show you around if you're interested."

Scully nodded, and they ascended the worn steps to the porch of the low,



rambling building on the very edge of the horseshoe-shaped bay. He sensed the dynamic eagerness in the younger man's voice, in spite of his effort to act casual, but his own mind shared little of his own interest.

PEARLS were about all that interested the black-haired trader. He would rather find a pink pearl that scaled twenty grams than discover a hundred new varieties of coral or crab or anything else that lined the bottom of the ocean. He had sailed fifty miles out of his way in order to scout this section. Now he had visions of being held up for half a day by a friendship-starved scientist, when he could be ferreting out possible finds among the natives. But his heavy, rounding shoulders shrugged under a sweat-soaked white coat and he trudged after Hardin.

The scientist, in his early thirties, looked more like a native diver than he did a man of science. Brown as a penny, his body was tall and well proportioned, with long muscles rippling smoothly beneath a thin, cool shirt. He turned down a stairway in the main room and led the way to a below-floors laboratory.

He was intensely eager to show his workroom to Scully, for it had been long since he talked to a white man. Helen, too, stayed at their side and interpolated her husband's scientific explanation with little side-remarks of her own.

It was gratefully cool in the cement-walled room. The tropic heat of the outdoors was forgotten down here. About the room were small galvanized tanks and a large work table equipped with a microscope and dissection apparatus. The west wall was a dark green, and as shiny as porcelain. Scully was puzzled by it.

Hardin hurried to the light switches and flicked off the overhead dome. Instantly a cool, green light flowed into the room from the wall. A gasp of amazement parted the stout pearl buyer's lips. "For Lord's sake!" he gasped. "We're right on the bottom!"

It was a fact. The wall was merely a thick partition which screened the room from the waters of the lagoon. Beyond the glass, in the green waters that caught the sunlight, could be seen gaudily-colored fish, waving sea-plants, coral beds. The scene was one of indescribable beauty. Now Hardin flicked on a small globe dangling down in the middle of the glass wall, and almost instantly fish commenced to congregate curiously, staring in at the light.

A five-foot shark loomed out of the darkness beyond the light and swam up curiously. Scully gasped and flinched involuntarily. A beautiful parrot-fish with its multi-colored streamers flashed into view and was gone.

The scientist turned and smiled briefly. "But this isn't getting us anywhere," he objected. "Out there is my schoolroom. In here is my laboratory. I'll show you what I learned out of my watery text." The light went on again, and he went to a table where a curious device of gleaming copper was stationed.

Scully's piggish eyes blinked at it. It was unfamiliar to him. It looked like the tops of two large copper spheres set into a shallow brass pan, and connected to each other by a series of pipes. Gauges and lead-offs dotted their gleaming surfaces. One main tube, perhaps two inches thick, led from each dome to join on the table itself, their confluence ending in a wide, flat opening.

He turned his attention to the naturalist himself as he prepared to start

the apparatus. Again that probe of memory jabbed his brain. He was definitely sure that Hardin was uneasy because of his presence, even if eager for company. And he was almost as certain that he knew the man's face from somewhere. . . .

CORT HARDIN was speaking. "This may be as impractical as a wooden anchor, but . . ." he chuckled and a boyish grin flashed over his lips, "you'll have to admit I've got something here! Just what—" He shrugged and left it at that. Then his fingers were raising a bit of pink coral from a beaker of salt water. He dropped it through a hole in one of the domes.

He talked on as his foot tripped a lever and a battery of electrical equipment below the table burst into life. The copper spheres vibrated a little. "You'll excuse my language, but some of these things can't be said in two-syllable words. To put it briefly, that coral I dropped in was a bit of sclerodermic coral that has been two years in growing. The opposite tank, from which you may observe some curious blue steam arising, contains the substance it feeds on—plus some additions of my own that seem quite acceptable to the actinozoa's palate.

"When those elements are brought together with the right temperature, atmospheric pressure, centrifugal action, and a few other conditions I won't try to explain, the coral achieves a rate of growth that leaves its oceanic brothers in a cloud of dust. It's not at all uncommon for—but, look!"

Scully's eyes went to the opening at the juncture of the two pipes. His brows went up into his greasy forehead. He muttered something unintelligible as surprise claimed him.

From the opening was writhing a lumpy, pinkish mass that spread across the table like dough. Hardin bent across the table to tap its surface with a pencil. The doughy mass gave off a solid, sharp click. It sounded as hard as steel!

"There're fifteen years of growth lying there!" he nodded emphatically. "It can't be told from ordinary coral. It's just as hard, just as durable."

His wife smiled at him, enjoying the other's mystification, for her mind had been quick to detect Scully's contempt for her husband's occupation.

"I could fill this room with coral in a week," the scientist said thoughtfully. "Give me a big enough workshop, and I could create any amount of it—though I'm sure I don't know what I'd do with it!"

BUT Scully was rushing forward to examine the artificially-grown coral. For a moment his breathing was loud in the room. His face shone under the bright light, drawn into weird lines by his intensity. Suddenly he whirled on the man of science.

"You don't know what you'd do with it!" he cried. "You don't know. . . . My God, Hardin—can't you see farther than the end of your nose? It'd be the best road-surfacing material we've ever known! It'd be a beautiful, permanent material to construct houses. It could replace nine-tenths of the industrial plastics. We might even use it for dental fillings!"

A frown of impatience crossed the other's brow. "Eventually, perhaps," he conceded. "But there are years of research to be done yet. A thing like this is dangerous to try without plenty of study. Suppose it didn't hold up?"

"Hold up!" Scully sneered. "It's as hard as cement." Suddenly he reached forward to grasp the other's lapel with a pudgy fist. "Listen, Hardin. I know how to put a thing like this over. Sup-

pose we got together on it. I'll work this thing so you can make millions!"

Hardin shook his head firmly, annoyed by the greedy pearl buyer's trying to insinuate himself into his discovery. "It isn't ready," he repeated. "As far as the money goes, I've had my fill of big business."

Helen darted him a warning glance, which was not lost on Scully. He blinked at the pair of them. Suddenly his mind was flashing back into the past. Softly he echoed, "Big business! Now where did I hear. . . ." And then he stepped back and laughed. He laughed louder and louder, until Hardin looked meaningfully at the girl. But the other was far from insane.

"So that's why a smart bird like you would be out here in the middle of the Pacific!" he mocked. "I'll just bet you've got your fill of big business! You should have—with rewards out for you for five years!"

Hardin stiffened. And then he slumped. He listened dumbly to the trader as he went on, tearing at him like a mastiff at the heels of a doe.

"We get papers down here. I thought I recognized your face, young fellow. Wasn't it the House of Waterman you helped build with some other crooks and then sneaked out of when it collapsed? And let a few hundred investors go hungry because of the four of you." His fleshy mouth twisted disdainfully.

Abruptly Cort Hardin got hold of himself. "I was in it, yes. But they used me just as a front. I didn't know what was going on. When I found out, I left the country rather than suffer for their crimes. I sent back all the money I had, to help as much as I could."

"But that doesn't make you any whiter in the eyes of the law, does it?" Scully grinned. "I'll bet if I was to send a cable to the States. . . ."

Helen rushed to her husband's side. "But what good would it do you?" she pleaded. "Cort was innocent. You couldn't make anything by simply giving him up."

Scully nodded. "That's right, Mrs. Hardin. But I could make plenty by not giving him up—if he'll listen to reason and go into business with me."

A frown traced its lines across Cort's brow. "Go into business—?"

Scully smiled blandly. "We might call it the 'Island Building Materials, Incorporated.' No. How about 'Scullycraft'? That's good. We'll supply bricks, paving, plastics—a hundred things. Of course I'll have to put the business in my name, since you're wanted. But I'm not greedy. I'll give you a salary!"

Cort Hardin lurched forward and his strong hands locked about the other's throat. For a moment a red blaze blinded him to everything but the flushed, evil face of the pearl trader. Then the girl's tugging hands and tearful voice recalled him. With an effort he let his hands drop and stood back. His mind made a quick survey of his predicament.

And every way he turned he could see he was in trouble. He could murder the man and preserve his secret; and be hanged for it. He could run away again, and eventually be caught once more. Or he could give in to the man's demands, sign his invention over to him, show him how to run things, and hope for a chance to clear himself.

But there was his wife to think of, and that consideration drew him to the one possibility: to give in to Scully's greed. Panting a little because of the strain he was under, he said quietly, "All right, then. We'll go back with you. But if my chance ever comes . . ."

Scully's laughter cut him off. "I'll see that it doesn't," he said. "In the mean-

time, start packing. We're taking tbe first boat back to tbe States!"

CHAPTER II

Scullycraft Becomes a Business

IN the months that followed, Hardin and his wife learned new things about misery. April found them in Los Angeles, living in a small bouse behind the factory Scully had built. While he lived in constant fear of being taken by the police, be was forced to spend all his time perfecting "Scullycraft." Helen anxiously watched his face grow thinner and sharper.

The factory was not a large one, but to Cort, laboring alone in its gloomy expanses, it seemed as large as a penitentiary. All day long he worked in the laboratory, striving to answer Scully's demands for speed. He bad been able to increase the production rate of coral by seventy-five percent; now he must find a way to make its texture finer, so that it would provide a perfect surface for ornamental work.

But at every turn the naturalist was blocked. When he combined two specimens of actinozoa that should bave produced a close-grained skeleton because of their own small structural pattern, he got coral with holes the size of tbose in Swiss cheese. Wben he did produce anything fine enough for commercial use, it proved to be as soft as earth.

It seemed that the great venture was doomed to failure. The jewel merchant stormed about the laboratory threatening to expose Cort. Cort would grow angry and frightened, and the work would suffer proportionately. Then, one day, a new idea sprang into the scientist's mind. Why not make the coral under great pressure?

Pressure! That was it. Undersea growtbs were used to great pressures. Their skeletons were made to withstand it. Why not, then, triple, quadruple, the normal pressure and crush their internal cavities down to a fraction of their normal size?

He tried it—and it worked. A translucent pink material as fine as marble and even harder was the result. Scully stood watching it ooze out of tbe small testing tank, and his eyes grew shinier by the moment. "That's it!" he muttered. "That'll make the building boys sit up and take notice. Tbey can't stop us now!"

"No," Cort breathed. "They probably can't. That's what I'm afraid of." For in his own analytical mind there remained still a hundred questions about his invention.

INSIDE of six months a new word sprang into national consciousness: "Scullycraft!" From all over the country, builders, architects, artists came to Los Angeles to see the miracle of man-made coral, where the industry was springing up to mushroom growth. Cort had done his work well.

A dozen different machines had sprung into life from bis fertile brain. Crowds followed the curious, street-cleaner-like paving machines that rolled down the bighways, laying a lumpy, pinkish mass that a polishing machine would grind to glass-like hardness and skid-proof smoothness.

From the monstrous cauldrons within the walls of the factory came enormous masses of multi-colored coral that were cut to the size of slabs of marble. Skyscrapers raised themselves into the sky; not ugly, gray-white structures, but slender fingers of opalescent coral—pink, white, green, a dozen otber tints. In the memorial parks beautiful monuments were placed among the works of the masters.

It was a poor street indeed that did

not have a coral sidewalk or at least an ornamental coral light standard.

And in the small house behind the factory, Helen tried to console her husband, who, unimpressed by the success of Scullycraft, was waiting for catastrophe to strike.

"Maybe we can save enough to leave again," she said hopefully. "We did it once. I'm still ready to go anywhere with you."

A sigh swelled the young scientist's chest. "And we'd be caught again," he said despairingly. "But aside from that, there's this—Scullycraft stuff. How do we know it's going to hold up? It's hard, yes. But will it stay that way?"

"Doesn't regular coral do it?" the girl asked.

"Sure, but. . . . This isn't regular coral. It's practically the same, except that I've learned how to make its texture so much finer. Suppose it develops some fault!"

Helen was on the point of answering when the door opened. Scully marched in.

The ex-pearl buyer was attired in a loud summer suit and a pink silk shirt. He was the typical newly-rich, and rich he was. Scullycraft, stolen from its rightful owner, had brought him almost a million dollars. Now, as he sprawled his bulk in an armchair, his face was flushed with interest.

"Remember I mentioned dental plates a while back?" he began abruptly. "Well, I got a better idea now. You said this coral stuff feeds on bacteria and all that. Aren't there bacteria in decayed teeth?"

Hardin nodded, fearing the worst.

"All right, then," Scully said vociferously. "The next thing we're going to do is start selling to dentists! We could put a tiny piece of live coral in a tooth cavity with a drop of your solution. The coral would feed on the bacteria of decay and clean out all the dead part without any need of drilling! After it filled the cavity, we could kill the coral and grind it down smooth!"

Hardin took a deep breath. "Good Lord; what next!" he breathed. "Can't you wait a year or so, until we know what's going to happen? Maybe the stuff will fall to pieces in six months. Maybe it'll turn to liquid. Maybe—well, how can I even guess? Science is based on unending research. A thing isn't perfected until it's been investigated. Every invention is guilty until proved innocent!"

Scully stood up. "The stuff satisfies me," he snarled. "See what you can work out tomorrow. Don't get restless, or I may find myself talking to headquarters some day soon, about a crook the government would give a lot to find!"

Cort Hardin clutched the arms of the chair for support as the other went out. He left his finger-marks deep in the upholstery. For a half-minute he did not speak, and then he said tensely, "I've had all I can stand. There's just one possible way out. I've got to try it!"

"What is it?" Helen asked hopefully.

Hardin seemed not to have heard her question. But after a moment he breathed, "It's a long shot, but it's worth it. In our position, you surely can't lose much!"

BUT for a month he held off, hoping something would happen to save them without the necessity of taking such a risk. Scullycraft was skyrocketing up in a manner that frightened Hardin and dazzled the greedy pearl buyer. Scully was constantly after him now to rush the dental idea through. There were millions in it, he argued; why wait? And one day, when he had given a last warning to Cort to do some-

thing about it, the scientist knew he could wait no longer.

Clouds had piled thick, hot, and heavy that morning over the city. It looked to Cort, as he headed up Wilshire Boulevard, as though the first rain of the season was on the way. Late September was still hot, with the thermometer hovering in the nineties much of the time. The air was oppressive, as moist and stifling as that of the tropics.

When he had entered the exclusive shopping district, the first big, splattering drops fell. They splashed on the broad coral street in a glistening sheet. The wide boulevard, famous for its exclusive shops and apartments, had recently been paved with Scullycraft. Along the sidewalks, pale green light standards harmonized with the pastel pavement. Tall buildings, delicately shaded, glistened in the rain.

Cort's first warning that anything was amiss was a slight bumping beneath the car. He frowned and released the wheel to test for a flat. But the car held the road, and, aside from its bumping as though it were suddenly running over a corduroy road, went along all right. Cort shrugged it off and decided the springs needed grease.

Crash!

Without warning the car leaped in the air and came down sideways, slewing about dangerously to a stop. With an oath the scientist yanked on the brake and leaped out. All about him he saw other cars stopped in strange positions.

All at once he leaped aside and shot a startled look at the spot where he had been standing. Before his eyes the pink coral pavement was breaking up and growing large and ugly bumps! Over the sheeting hiss of the warm rain could be heard a low roar that stretched out in both directions along the street.

The thing that had stopped his car, he saw on glancing back, was a great block of paving that had been hurled from its place. There was no mistaking it. The coral was growing once more!

Cort Hardin stood rooted there in the middle of the street, while rain poured from his soaked clothing. His mind flashed over the strange phenomena and from it he wrested the secret of what had happened. Beneath the surface of the coral there was still living, dormant, organic life! Perhaps heat produced by the process under which Scullycraft was evolved resulted in temporary inactivity of the calcareous actinozoa. Now, stimulated by the hot rain, it was springing into life once more!

His attention was yanked away as a loud crash shattered the low roaring of the breaking pavement. A few hundred feet away a section of one of the magnificent coral apartment houses had crashed to the street! Before Hardin's very eyes the buildings were growing grotesque. And now men and women ran into the street screaming as though an earthquake were taking place.

A lamp-post swished through the air and thundered into the broken pavement almost at the scientist's feet. The narrow escape from death galvanized action into his limbs. He darted to the sidewalk and raced for the nearest street which had not yet been paved with Scullycraft.

IT was nearly dark when Cort returned to his anxious wife. All afternoon she had sat by the radio listening to lurid reports of the havoc within the city. Dozens of automobile wrecks had been caused by the shattered pavement. A number of persons were injured by falling masonry, though no one had been killed. A strange sight was to be seen in the city's cemeteries, where monuments were sprawling grotesquely into caricatures of statues.

Helen threw herself into his arms with a glad cry when he came in the door. "I thought you'd been killed, or —or they'd caught you," she wailed.

"Not a chance," he said hurriedly. "Now, don't ask any questions, hut how soon can you pack?"

"Pack?" Her eyes widened. "You mean we're—"

"Going hack," he said excitedly. "Back to take up my work where I left it off."

She was mystified and excited, but his anxious face sent her hurrying away to throw their things into suitcases in obedience to his order. In fifteen minutes the small house had been locked behind them. Cort piled Helen and the luggage grimly in the car and dived in himself. With a skidding of gravel they slewed from the drive.

But escape was not to be so easy. Before Cort could send the car ahead, a black police sedan was pulling in heside them.

A gasp of dismay came from the girl's lips. She could not speak, hut in her face was mirrored all her sharp disappointment at having been so close to escape, and then to have to be taken. . . . She watched Cort get out and wait for the two radio officers.

"Sorry to be botherin' you again, Mr. Hardin," one of them smiled quickly. "We got a call to pick you up."

A frown gathered on the scientist's face. "But I thought—" he began.

The cop's good-natured red face split in a grin. "Oh, now don't be worryin'," he advised. "And the little lady can dry her eyes, too. The Waterman case is still closed as far as we're concerned."

A sigh of relief raised Cort's chest. He turned a happy face to Helen's. "I should have told you before," he said, "hut you had enough to worry about. I got fed up with waiting for the police to find me, so—I went to find them! I'd hoped for a long time that something might have happened to clear me. Well, it had. One of my partners turned state's evidence just before the trial. He cleared me and threw all the hlame on himself and his two cohorts!"

Helen's face was disbelieving, and then radiant. Her eyes went past Cort as the officer added, "And all we want now is to find a gent named Scully, who was the president of the company you worked for. He's going to be pretty busy for the next few months trying to wriggle out of a couple of hundred damage suits. Not to mention our own charge of selling under false and misleading advertising."

"There's nothing I'd rather do than tell you where he is," he replied sincerely, "but he's prohahly skipped."

Then his gaze swung about as Helen added quickly, "You can find him at a Doctor Palmerston's. He left about three with a small piece of coral and some of your solution. He didn't say what he was going to do."

"Doctor Palmerston's!" Hardin gasped. Then a gale of laughter doubled him up. His face grew crimson with mirth as the others stared at him. Finally he managed to stop laughing.

"Gentlemen," he said seriously, "if you want to take your prisoner alive, I think you had better hurry. And while you're at it, it might be well to take along a pneumatic hammer and a small charge of black powder.

"Doctor Palmerston is Scully's dentist, and it's not hard to guess why he took along a hit of coral and some growth-solution. About this time he'll be realizing what I meant when I advised him to take it easy—hecause there isn't a better place for his coral to grow than in a warm, moist place like the human mouth! Unless I miss my guess, he'll have Scullycraft running out of his ears hy now!"

THE CITY OF OBLIVION

By BRADNER BUCKNER

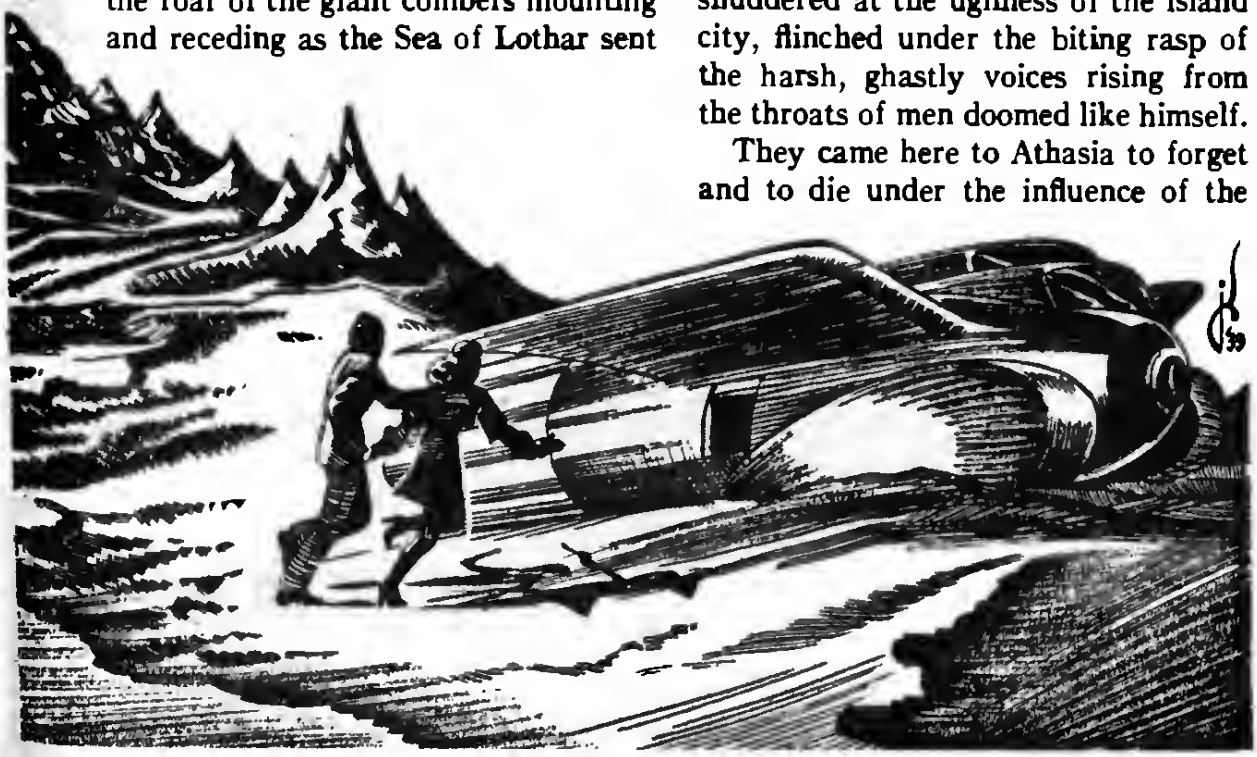
Webb Temple went to Athasia to escape the memory of a thousand accusing dead, and then battled to remember and justify himself

CHAPTER I
Lunar Exile

BROODING with all the bitterness of a tortured soul, Webb Temple sat on the edge of the wharf barely out of reach of the gigantic waves and watched the bobbing lights of a Ganymedian supply ship wallowing away in the night sea . . . away from the destruction he had travelled millions of miles to embrace.

Around him was the heavy silence of a deserted waterfront, broken only by the roar of the giant combers mounting and receding as the Sea of Lothar sent them battering at the base of the volcanic island. The young scientist's haggard face was a study in emotion as he watched those lights dropping down behind the distant horizon. Then with a sigh he turned a leonine head to glance up the hill behind him where hundreds of grotesque structures clung to the sides of steep, winding streets. A sardonic smile turned the corners of his fine mouth a little as between the crash of the heavy seas he heard the sounds of music and reckless laughter. He shuddered at the ugliness of the island city, flinched under the biting rasp of the harsh, ghastly voices rising from the throats of men doomed like himself.

They came here to Athasia to forget and to die under the influence of the



gaseous fumes that still seeped from the extinct volcano's crater, gasses embracing elements that induced gradual, permanent loss of memory and a slow, not unkind process of death. But there were times when newcomers had to resort to quicker forgetfulness brought with them in bottles from Earth, or imported from neighboring planets.

Tonight, if Temple had been a drinking man, he would have been up on the hill carousing in one of the cafes. But this night he was remembering things he had traversed a vast void of space to forget. . . .

It had been four months now since he had come to Athasia on the second largest of Jupiter's moons, Ganymede. Earthians called Athasia "the city where men forget," and Temple's days were a level march of unimportant hours. Through them he groped impatiently toward the complete Nirvana that would finally embrace his brilliant, mercilessly active mind and completely sever him from the torture he sought to escape.

It was a different life, this dreamy existence on Ganymede, from the one the scientist had known on earth. No long nights in the laboratory, measuring sound impulses, testing for deviations; no plotting of charts and battling to change stubborn curves. There was nothing here but the effort to forget while in the nostrils was the elusive odor with the power of bringing permanent forgetfulness and . . . the final, peaceful end of all things.

There were thousands here who had attained the mental state the young physicist coveted, and many more who had gone the limit. He saw everywhere those who were awaiting the finish, drifting about in a state of complete mental freedom.

But for Webb Temple, oblivion was slow in coming . . . too slow for a man with a thousand murders troubling his soul. . . .

He leaned back against a piling and stared beyond the shacks to the Upper City of Athasia. He brooded over the thought that he might have left his Earthian troubles behind him a lot faster had he taken up his abode there in that luxurious section of the city of living death. Of the three districts of the island, the upper one closer to the deadening fumes drifting from the crater was the wealthiest and the most carefree.

Earthmen with troubles and money built fine structures of obsidian up there and found oblivion quickly. Below was the less pretentious belt where a man with a few thousand dollars could live out his span of life a little longer, breathing the narcotic gasses filtering past the upper crust. Here was the middle class.

And below that, cringing just above the battering waves of the Sea of Lothar, was the district that accepted any misfit who could get across the black void of space to the satellite. Murderer, criminal, or coward, a man was welcome anywhere on Athasia, and they came in droves; but here the city's dregs seemed to settle like foul residue in a refining basin.

A squalid, precarious place of filth and violence, men forgot more slowly here and died more swiftly. And here, because he had no money and no desire for companionship, Webb Temple drifted from day to day, hoping to forget that he was the most hated man on two worlds.

NOW, with a muttered oath, he shoved his long, bony frame up and fumbled for a cigarette. He found one—his last. Smoking broodingly, he stalked along the deserted quay, past black doors and brilliant, noisy cafes.

There was a hollowness to his stomach that had been there a long time; but one thing men never forgot here was that money was king.

Then suddenly Temple was spinning about as a quartet of men burst from a lighted shop to pile against him. Ragged nerves dragged his lips back in a snarl. He clutched a convenient throat and snapped, "What's the idea, fellow? If it's trouble you want—"

Four pieces of human flotsam regarded him in mild surprise. The strangling one gasped, "Space ship comin' in! Just been sighted."

"Better come along and watch her land," one of the others grinned, as Temple's grasp fell away. "Keep you out of trouble. You're drunk."

Webb watched them somberly as they rushed away, in the direction of the landing float. Disgust lay darkly in his eyes. Like a bunch of vultures, the newcomers always rushed down to watch a new batch of soul-weary men arrive.

But even as he swung bitterly away, a column of brilliance pierced the black sky to focus on the broad landing float. A twinkling chain of lights that were illuminated space-ship ports began swiftly to settle. From its landing tubes burst flat mushrooms of vivid green fire, on which the torpedo-shaped vessel seemed to float to its landing. All over the landing barge red and green lights winked on.

Temple experienced a sudden pang in his chest. Homesickness, though he would not admit the emotion was that, started his feet toward the scene. And with each reluctant step memories grew stronger—bitter memories of a dreadful blunder, of a night of horrible death, of a girl—

HARDLY knowing how he got there, he soon found himself in the small crowd of low-class Athasians behind the guard-chain on the float. Yet he knew he had no desire to meet anyone from Earth.

Bitterly he detested the world that had exiled him, and every man and woman on it. But in spite of himself, a quick stimulus of excitement lifted him as the passenger hatch swung wide. The circle of light was almost instantly broken by a figure that moved into the aperture.

A murmur of excitement stirred the onlookers, to break suddenly into a sullen mutter. For the passenger who had stepped to the planking was one of the only class barred from the island—a woman!

The faces of the onlookers grew blacker with the girl's confident advance toward the passageway they thronged. Resentment whipped their tempers raw. There were few of them whose exodus from Earth had not been in some way connected with a woman. It had not been chance that ruled the troublesome sex from Athasia.

A single hurried glance into the faces around him told Webb that real danger menaced the girl. At the same instant the girl seemed to realize her position.

She stopped, and one hand went slowly to her throat. In the glare of landing lights her hair glistened like gold, and her mouth appeared like a small red seal in the pallor of her face. She shrank back a little.

It was then that a drunken Athasian ahead of Temple shouted, "From where I shtand I c'n see trouble for Athasia! We got all the women we want now, and they ain't the kind no man will fight over! Who'll help me throw 'er in the ship and send her back?"

The answer was a burst of shouting that exploded like a bomb. The drunk crawled over the chain and led a weaving advance on the girl. All down the

line more vengeful men piled over the barricade.

Without warning a lean, swift form knifed through the first line of runners to catapult upon the leader from the rear. They crashed heavily to the planks, arms and legs frantically lashing about. As the swart visage of the half-crazed Athasian loomed before Webb, he drove a savage fist to the man's jaw. The sodden sound of the blow held a grim finality that slack features bore out.

Without a backward look, the physicist went racing toward the girl, his keen gray eyes glittering. Fear for the girl was like a goad in his back, urging his muscles to impossible speed.

It was plain to him that death was what the men held out to the girl. For he knew now it was a private ship, and she had come alone.

He pounded to a halt before the blonde visitor, seized her arm and commenced dragging her with him to the edge of the float. "*Run*, you little fool!" he panted. "They mean business!"

His eyes had scarcely recorded a feature of the girl's face, but now a sharp cry pulled his gaze down.

"Webb!" her voice came throatily. "Webb! Do men forget here this soon?"

Crystals of ice prickled along the frigid channels of Webb's veins. His shoulders wilted. Then: *"Aline!"* Only that one word tumbled from his lips, but in it was a lifetime of despair.

For all the grief he had fought to escape had come rushing back at him from the depths of the girl's eyes.

CHAPTER II

Plea from a Doomed World

SECONDS pulsed through Temple while his eyes went over the cameo-like face, strained, now, and frightened. His own eyes were haggard under heavy brows, his lips drawn.

The drumming approach of running feet aroused him barely in time. Almost brutally he swept the dainty figure into his arms. Muscles tempered by riding and hiking bore him swiftly along with his double burden. Past the small space-ship they flashed, and on toward the sheer drop of the float's edge.

The crowd of pursuers wavered and found a stumbling halt as their quarry dropped from sight. In the sudden hush came a far-off splash.

Men looked in awe at each other, and slowly, shame-facedly, turned back. Jumping from a wharf, to be crushed against the pilings by breakers, was a favorite means of suicide among such of Athasia's as became impatient for oblivion. But this time it had been murder, and they knew it—

After the blinding shock of icy water faded into a pervasive ache, Webb began clawing up from the midnight depths. At the same time he struck seaward, as he guessed it must lie.

The relentless drag of the waves could be felt as a tangible force already. Hopelessly he realized the fight to escape death against the sea-wall had started.

Now they burst from the water, two tiny, struggling bodies bobbing on the breaker line. Instantly Aline broke away from him, gliding into the water with strong, graceful strokes.

She eluded Webb's frantic grasp. "Save yourself!" she panted. "I can swim as well as you!"

Temple's voice was nearly lost beneath the thunder of a breaker. "Then swim away!" he snarled. "It'll be your last chance. Why in Heaven's name did you come here, Aline?"

"To bring you back!" she flung over

her shoulder at him.

Amazement dragged the man's arms down. "You can say that, after—"

Suddenly he was laughing, a wild sound that mounted harshly above the triumphant moan of the sea. He laughed until a mouthful of water strangled his shouts, and then his long body writhed over and he lashed past the girl and fought toward the open sea.

He swam like a man pursued by devils, but it was a hopeless effort. The demon he fought to escape was the one in his mind. And already it had carried him back to the past he dreaded.

BLACKEST of all his regrets was remembrance of his deadly vibration-director, the death machine that had caused him to seek this pseudo-death he lived in. From the muzzle of the small weapon he had been able to project a rhythmic stream of super-vibrations that liquefied any living organism's cell tissue almost instantly.

Then, on the eve of publicizing his invention, Webb had conceived his violent suspicion of the inhabitants of the small Martian colony at which he was a department head. As one of the physicists assigned to the experimental Martian colony in North America, he had never got over his first distrust of the pygmy race.

For three years, now, ten thousand of the gnome-like creatures had dwelt in a modernistic city on a high, dry plateau of New Mexico, that most nearly reproduced their own climate. They lived in houses constructed like their own homes on Mars, and worshiped their idols in a huge, closely-guarded underground cathedral, the interior of which no Earthman had ever seen.

During the day the Martians collaborated with men like Webb, comparing the philosophies, arts, and sciences of the two planets.

Temple had his first suspicion when he chanced to observe a group of "worshipers" carrying pieces of machinery into the mysterious cathedral! Here was foundation for his distrust! Like a slow poison eating into his vitals, the idea spread through his brain that the temple was no more than . . . a munitions factory.

Further observations strengthened his belief. In a fever of apprehension, he told his fears to Max Radic, Head of Works at the colony—only to receive a scornful denunciation. He told Aline, but her reaction was to beg him to take a vacation from his work.

Angrily Webb had decided on a coup. Late one night, armed with his murderous little vibration director, he had crept unseen down to the bottom level of the cathedral.

The scene that burst on his vision, as he slipped through a door, was one that froze him with a bone-wracking chill. The place was a vast storehouse of Martian arms, a factory in which great machines chattered busily and thousands of workmen labored at top speed on strange weapons such as he had never seen! The god who was being worshiped here was War!

Now Webb had the proof he needed to wake civilization up!

But Fate had other plans. Before the scientist could move, a guard saw him and raised his gun. A terrific explosion rocked him as a great hole was torn in the floor nearby. Breathlessly Temple fought off the horde of workers and guards that rushed him, while death thundered all about. Only their hasty aiming saved him from death by the horribly destructive weapons.

Then his tubular vibrator had come up, stopping them by the dozen, by the score, by the hundred. There were a thousand dead when he stumbled out.

A shudder racked Webb Temple's limbs as he recalled the things that ensued.

In an hour he had come back with Radic and a hundred soldiers. Eagerly he led them to the scene of carnage . . . to stop in horror, as he found no trace of the munitions! Nothing remained but a thousand dead Martian priests and worshipers in their ceremonial garments, lying in grotesque heaps before their idols. . . .

Disaster moved swiftly after that. Bereft of proof, almost crazy with self-doubt and confusion, he tried to answer the questions of a prejudiced court.

Radic was savage in his demands for execution. Webb escaped on a plea of temporary insanity. But it was a hostile world to which he emerged. Employers laughed in his face—and had him thrown out. Aline was coldly aloof, puzzled.

Within a few weeks, Webb Temple had become one more misfit for Athasia.

HIS head pivoted, now, as the girl slid in beside him. Her own smooth stroke was a match for his more powerful efforts. Anger rushed through his face.

"Save your breath," he gasped, before she could speak. "I washed my hands of Earth when I left. Nothing you can say can change what's happened. If we ever hit dry land, we're going to refuel your ship and get you away."

Aline's chin was trembling with cold. "But you were right, Webb!" she exclaimed. "I went in the temple, too! They'd shut off the floor their guns destroyed and moved the bodies up one level. And I'm sure Radic is helping them!"

Webb could only stare.

"I can't be positive, but if I'm right —Webb, you've got to come back! They're ready to move any minute! When they do, only vibration-projectors can stop them, and you alone can make them. Will you come back, to show us how?"

Webb's derisive scowl melted. Suddenly he knew he had been wanting to return for a long time. A new elation leaped to life in him at the thought of fighting his way back. But for the moment he forced down the impulse to agree.

"This isn't the time to decide that," he told her. "Right now we've got to get out of here. The only way I know is the jetty a half-mile upshore. . . . "

He squinted at a distant sprinkling of lights, where a spit of rocks probed out into the sea. "I'll challenge that statement of yours that you can swim as well as I," he flashed suddenly. "Here's your chance to prove it!"

Without warning, he ducked his head into the water and sprang ahead. His strong overhand stroke placed an immediate gap between them that Aline had to fight to keep from growing larger.

Webb's muscles ran with liquid fire, it seemed, when they cleared the landing float and escaped momentarily the fierce drag of the inshore tide. He settled into a distance-eating crawl.

Then for long minutes they were struggling through mountainous rollers, wallowing up one side and scooting down the other, never more than twenty-five feet between them. The thrill of a race was in their faces, but Webb was not fooling himself. Death was the foremost contender in this contest.

From a long, steady pull ahead, he glanced back to find the breach was much greater. Anxiety hit him solidly. He treaded water until Aline came up, gasping and barely able to move her arms. But she was still grinning

bravely, and tried to resist when Webb's arm slipped about her shaking form.

"Hundred yards more," he murmured. "Can't stop us now!"

It seemed an eternity later that they saw jagged black rocks shoving through the foam of the combers just ahead of them. Lights dotted the length of the reef, strung along on tall standards. Webb watched the waves break for a while, without saying anything. His eyes were on a ledge the highest breakers barely reached.

At last he met Aline's questioning face. "Better now?" he asked.

"Fit as a fiddle," she smiled.

Webb said tightly, "Good. Start swimming when I do, and keep it up until you feel rocks under you."

The water seemed to swell beneath them, flinging them ever higher on the breaker's crest, bearing them helplessly toward the jetty. Suddenly the wave broke.

A roaring was in Temple's ears, and he felt himself buffeted by currents and cross currents. He stiffened himself against the shredding contact with cruel lava rock. Something brushed his face, and instinctively he seized it, to find his hand around Aline's ankle.

Then a great sense of relief flooded him as the water surged back, letting them down with hardly a jar upon the ledge! Somehow Webb found strength to raise the helpless girl in his arms and stagger through knee-deep water to shore. They lay side by side on the sand for a long time, before either could move or speak.

CHAPTER III

The Four Who Waited

IT was a dazzling flash of light that finally brought Webb from his stupor, to gaze at a second incoming space ship. A little cry from Aline told him the girl had seen it, too.

Curiously, he scanned her tense features. "It's not a ghost you're seeing," he said reassuringly. "Just another space-ship."

She had come to her feet with a rush. "But don't you recognize the insignia . . . three green lights in a triangle, a red one in the center?"

Webb frowned. "Green lights—that's a government ship. And the triangle—"

"—means it's from the Martian colony. And only one man is entitled to the red light!"

"Radic!" The word burst from Webb's lips. "Aline, you weren't serious about suspecting him, of all the men at the colony—?"

She turned to face him squarely. "The night I was in the temple I heard a voice I'll swear was his. And another thing made me doubt him. Since you left, he's constantly pumped me for all I knew about your invention. He says the government needs it. But I wonder—which government did he mean?"

Thoughts crawled like ants through Webb Temple's brain. Had another man's treachery been shackled onto him? Could the Head of Works be the real brain behind the Martian plan? But if Radic were innocent, why had he followed Aline here—*if not to stop him from returning?*

Webb was unconscious that his features had frozen into a gray mask of craft. His words slipped like slivers of steel into the silence. "We've got to get off the streets. By now every woman-hating fool on the island will be searching for us, on the chance we got out. I have a friend in the upper district that might be loyal enough, or fool enough, to shelter us, if we can get to his place. Though, if I know Max Radic, he'll rout out every rat in Athasia looking for us. At least it's worth the try!

Jan Marlan will help us if anyone will!"

The space ship had fallen from their view by the time they gained the dark section of high, misshapen buildings of the lower district. Clutching Aline's hand, Webb plunged into a twisting route that soon had the girl protesting they had lost their way miles back. But soon the tenement-like structures blended into attractive, low-roofed buildings whose opalescent pink walls glowed faintly from inner lights.

Without warning Webb dragged the girl with him behind a street corner. To her questioning glance he answered by pointing across the street. Two squat, deformed men in yellow flying suits were hurrying along beside a larger man dressed in ordinary Earthian garments. "Martian" was written all over the flyers.

"The bullet-headed fellow was the drunk who led the rush on you," he whispered. "An ex-convict named Baron. Evidently Radic knows the right sort of men to track us down. Most of us down-and-outers will stick together, but Baron would sell out his own mother, if the price was right."

They hurried in a new direction for a few steep blocks, to halt even more suddenly as a fresh searching party loomed up. Webb literally dragged Aline into an alley, then rushed her along toward the other end. All of a sudden the far end was blocked by the form of a man who stopped, peered in, and moved on.

Webb's steps dragged to a stop. "Blocked!" he murmured. "The streets are full of 'em. We'll have to try the subways."

They hunched there in the semi-darkness until the clatter of searchers' feet faded out. Wordlessly, Webb slipped out of the alley and moved to the center of the street, to haul at a ring set in an iron cover. With the revealing of a round hole in the street, he motioned the girl to jump in.

She followed his directions without hesitation. When the iron cover was replaced again they found the rough-hewn tunnel was faintly illuminated by irregular streaks of phosphorescence that ribbed the ceiling. "The workmen paint the stuff on as they work along," he explained. "This is a newer tunnel, I imagine, so we've still got a little illumination. Lord help us if it doesn't run all the way to the top!"

But the light held out.

AFTER an hour of steep clambering over debris, the tunnel, one of a maze of them that took care of rains which might otherwise wash half the buildings into the sea, tailed out into a deep trench that presumably caught the run-off from the upper slopes.

Just above them, as they climbed to the lip of the viaduct, was the jagged rim of the crater. The odor of gas was stronger up here, bringing tears to the eyes of them both. Webb caught a breath, as he fancied he could even feel a slight rumble far below their feet. It was not the first time he had wondered just how extinct Athasia's ancient volcano was.

Now Aline caught at his arm as she stared across the narrow strip of lava to where a magnificent building reared from the slope. "It's lovely!" she breathed. "Why, it's like a Moorish palace done in crystal!"

Webb nodded slowly, his eyes on the graceful towers that soared from the gently rounded bulk of the home. The place gleamed like a gigantic golden diamond. Constructed of amber volcanic glass, the material sparkled to every stray beam of light that kindled on the myriad chips of gold within it. The slender, arched windows which ran from top to bottom were of clear glass that constantly shifted from one pastel

tint to another.

"Yes, Jan has a nice place up here," Webb said speculatively. He grinned at her swift look of astonishment. "In fact, it might not be a bad idea to get an inside look at it, before someone sees us!"

Webb skirted the big front door, seeking a smaller portal at the side of the mansion. Here a semi-spherical bulge in the wall allowed space for the room that he knew was Jan Marlan's study. His soft knock won a quick response.

Framed in the rectangle provided by the sliding back of a door was tbe figure of the wealthiest man on Athasia. Admiration sparkled in the girl's eyes. Jan Marlan had more than his money to attract women.

Something over forty, the mature vigor of a man in his prime slumbered in his muscular limbs. His chest and shoulders were those of a heavyweight boxer. Ruddy cheeks and an incisive pair of brown eyes spoke of rugged health. Yet there lay a brooding look of dissatisfaction behind his good-natured features.

Hurriedly he grasped Webb's hand. "Temple!" he exclaimed. "I was beginning to think there was a quarantine sign on my door, from the way you avoid it."

"Waterfront people don't get around a great deal," the young scientist smiled briefly. "You're alone, Jan?"

Marlan stood aside, indicated the rich interior of the small room. "And with all evening to entertain you in . . ." he smiled.

"Not entertain—protect is the word," Webb clipped. Hurriedly he introduced Aline, then warned tersely, "There's a lot of trouble not far behind us. If we come into your place, you're as like as not to have very unpleasant visitors looking for us, and you won't be any too popular yourself if they find us here. So unless you're a bigger fool than I think, Jan, you'll send us on right now."

The smile left Marlan's lips. "I seem to remember a courageous fool who helped me fight off a dozen thugs one night not so long ago," he cut in. "I've waited for a chance to pay back that favor, Temple. This looks like my opportunity."

Quietly he waited for them to come in, and then the door slipped back against the night.

Before a square of glowing red tile in one wall, Webb and Aline stood and let the warmth of the electro-resistance hearth seep through their wet clothes and chilled bodies. A puzzled frown tugged through the girl's face at the strange furnishings.

On the walls were brightly-colored prints exactly like those seen in any college of surgery. Every portion of the anatomy of the human body was to be found gracing the walls. Striated and non-striated muscles formed a group of tastefully-framed pictures.

In glass cases she saw arrays of gleaming surgical instruments. A defunct sterilizer squatted on a small taboret. Set into the wall were a dozen book cases filled with leather-bound books on materia medica.

Contrasting acutely witb priceless vases and objects d'art, the surgical display brought a question to the girl's lips. "You're a practicing physician, Dr. Marlan?" she wanted to know.

Jan Marlan looked blankly at ber, and slowly a frown grew on his features. "*Doctor* Marlan," he repeated. "That —that sounds familiar, somehow. No, I'm just one of Athasia's idlers, I'm afraid." But in his dark eyes the effort to remember was still apparent.

Webb's hand had closed firmly on Aline's wrist. "Jan just collects these

things for something to do," he explained, and his eyes warned her that the subject was closed. The time was not right to tell her of a great surgeon who had attempted a difficult operation on his own daughter, nor of the scalpel that had slipped. . . .

"I'M going back to Earth, Jan," Webb said suddenly. He was aware of the girl's quick smile of relief. "A lot of what I'm going to say, you may not understand. You've been here a long time, now. Anyway, the situation is this. A terrible menace is about to be loosed on Earth, a horror that we can't imagine because it goes beyond our experience of tragedy. The man who is fostering it is in Athasia right now! If he finds us, Earth is doomed!"

Jan passed a hand over his brow. "Earth. Earth . . . I can't quite remember the place. A city, Temple?"

"A world more than twice as big as the one we live on," Webb said levelly. "That's why I mustn't be stopped from returning." Now his eyes pinched, darted toward the door as a faint sound aroused his suspicion. The sound did not come again. "Baron is helping him find me," he concluded significantly.

Marlan's strong features clouded darkly. "He hates you, doesn't he?" he said harshly. "He hasn't forgotten the night you broke his nose helping me fight off his gang of renegades! Well, let him come—"

Webb shook his head. "We're a match for Baron, but not for Radic and his Martians. They'd kill us on sight. But you can help us, Jan, by letting me use your rocket ship to get away. If we can reach Ila, across the Sea of Lothar, we can get a space ship and beat him back."

"Of course you can use it," Marlan agreed hastily. "In fact, the whole thing sounds so exciting I'm tempted to go along. But being only a two-passenger . . ."

Then all eyes were racing to the door, as a sudden pounding echoed inside the room.

Aline pressed close against Webb. His eyes shot to Marlan's tense brown features.

"Is there a back way to your ship?" he demanded. "If that's Radic we can get started while he searches the place."

The Athasian seemed to shake off the spell of inaction. Pivoting swiftly, he crossed to a bookcase and slid it down the wall a few feet, revealing a dark passage. "Thank the Ganymedians for this," he flashed grimly. "Their old reservoir is right under the building. This tunnel is part of the system. The control room is a couple of hundred feet down the passage. Wait there until I come for you."

The book case thudded into place behind them. With unaccustomed panic stirring in him, Webb hurried down the slope behind the girl.

A sharp turn brought them up against an iron-bound door which stood slightly ajar. It required the pressure of Webb's shoulder to thrust the thick portal back. His groping palm settled on a switch in the wall to the right of the jamb, to bring dazzling light into the room.

They hurried inside. All around them were ancient, dusty valves and gauges. Huge pipes descended from the ceiling to pass through the floor throughout the length of one wall. An odor of dampness, of earth and mold, hung coldly in the air.

Curiously, Webb glanced behind them. In the next moment a startled gasp was wrung from his throat. Pressed back against the wall, malevolent eyes gleaming, were four men who watched them in silence.

Two of them were Martians. A third

was the traitor, Baron. The last man was Max Radic.

CHAPTER IV

A Job for Baron

WHEN the silence had become a deep wall between them, the renegade government man's voice shattered it.

"Ganymede wasn't far enough, Temple," his deep tone came tauntingly. "This tbing is too big to run away from. It wasn't worth trying."

Webb's jaw jutted defiantly as he let his gaze rove over Radic's powerful form. His broad shoulders bulged the coat of his spun-copper uniform. Heavily thewed legs were revealed by his breeches and boots. His face was sallow and pouched, yet in the tawny eyes that blazed at either side of a Roman nose there was a hint of ruthless purpose. The menace in his Luger-shaped pistol was plain.

"Hell itself wouldn't be far enough from your kind," he returned. "I thought I'd seen all the rottenness Earth had to offer when I left. Hearing about you shows me I was wrong."

Baron swaggered from his place by an ugly Martian dwarf. "Another place you were wrong was in tbinking you could hide any place on the island from me. I've hoisted many a drink to this situation, fella. Tonight you made it easy for me. I thought you'd be smarter than to run to your playboy friend when you struck trouble."

Webb said scornfully, "Didn't take you two long to get together, did it, Baron? Well, it takes a buzzard to find the latest in carrion." His eyes flashed past the bullet-headed Athasian to his erstwhile chief's face once more. "What've you got in mind, Radic?"

Radic smiled, a yellow-fanged leer that puckered his whole face. He gestured scornfully with the massive Martian weapon his fat paw clutched. "These guns are great — when you aren't in a hurry. We can blow a hole as big as a washtub in six inches of steel with a single shot. But Yor and Ayo, here, have been a little uneasy ever since you massacred a thousand of their countrymen. An invention like that could be very disconcerting to an army about to take a continent tbe size of North America.

"Naturally, you won't be allowed to return to Earth. The high office has also asked me to get a rough sketch of the vibration pistol before I return."

"Then you'll be here a long time!" Aline said suddenly. "Webb will never give those plans to anyone but a War Department official."

Webb was not unconscious of the scowls that claimed the sickly-white features of the Martians, but he ignored the growing menace. His hand found its way about the girl's waist.

"You've heard my orders, Radic," he announced. "It's my guess tbat they won't be changed."

Baron canted his head to one side as he dragged a green tube similar to a fountain pen from his pocket. Savagery and eagerness distorted his wide, thick lips. "I say they will," he smirked, "and it ain't a guess! One drop of . . ."

"Shut up!"

Radic whirled, shot a piercing look through the door. "Marlan's coming!" he hissed. "You two turn your backs to the door and stand by those gauges. Maybe these guns aren't like yours, but —don't be too smart for your own good, Temple."

THE hasty tramp of Marlan's boots came closer. Webb ground his teeth

against the impulse to cry out a warning to him. But it could accomplish nothing more than the deaths of all three of them. A groan of despair was on his lips when the surgeon's hearty tones broke the taut silence.

"Wasted effort, my friends!" he was laughing. "It was nobody more dangerous than a neighbor who is continually imagining the crater is about to erupt again! Now for the ship, and then—Good Lord, Temple, you look like a ghost!"

"I'm sorry, Jan. I told you you'd send us on, if you were smart."

Slowly the physician followed his friend's eyes. He took quiet inventory of the quartet that was now moving in on him. Something like a smile was in his eyes when he finally spoke. "It looks like they missed you, Baron, when they cleaned the vermin out of my cellars last month. Or did you crawl out of the woodwork?"

In one motion the barrel-shaped renegade had catapulted forward to smash a balled fist into the other's mouth. Webb caught the stubby neck in both hands before he could leap on the struggling form of the fallen man.

Something crashed down on his head with stunning force. Radic raised the gun for a second blow as Webb reeled aside. His arm froze there, heavy with menace, when the young scientist made no move to attack him. Then he was speaking in a hurried cadence.

"Don't make the same mistake again, any of you. Back up against the pipes and stay there while Yor and Ayo lash your hands behind you. Don't forget I can end this whole business with one shot, and the Martian army won't be a lot worse off."

Defeat came down like a stifling fog over Webb Temple. The cruel bite of the thin metal cords with which the grunting Martian pygmies were lashing their hands could not equal the agony in his mind.

He knew that in this subterranean room the fate of Earth would be decided in the next few minutes. Memories rose before him, scenes of beautiful countrysides and the weird loveliness of deserts. His throat constricted with the recollection of gay Christmas seasons, of the laughter and joy he had known. All that happiness. even the right to enjoy the beauty of Nature, would be blasted, unless a miracle took place.

One thing could save Earth . . . his invention. The plans to that deadly weapon were recorded nowhere but in his mind. Max Radic would either tear that knowledge from him or he would leave three mutilated corpses in this chamber when he left—

Now Yor's frog-face split into a wicked caricature of humor. His yellow hand fell across the bosom of Aline's dress, to clutch a handful of the material. In his queer, gobbling speech, he asked: "De woman, Roddic?"

RADIC shook his head. "Not yet. Take the men's shirts off. Then it's the girl, if we need more persuasion."

Yor's face fell back into sinister lines. His cold, skinny fingers ripped Webb's coat and shirt off, while Ayo removed Jan's upper clothing.

"You've had experience in this sort of thing, have you, Baron?" Radic asked.

The squat, renegade Athasian had exposed a stubby point at one end of the green cylinder he held. His black eyes seemed to film over. "Somewhere —yes. I don't exactly recollect where, but my memory's still good on *how* I done it! It was on the order of this!"

Abruptly he had slid in close to Webb. Aline's scream sheared the tension. She

strained wildly against the bond that held her against the thick pipe, sobbing the terror that had been building up for hours. Baron stopped, startled.

Somehow Webb caught the terrified girl's eyes. In the moment in which their glances met and held, he managed to convey a message to her. A fire of craft and confidence that he did not feel glowed in his eyes. Gradually her sobbing quieted. She seemed to wait for the surprise move he had promised in that glance.

Again Baron raised the pointed object. His thick lips thinned whitely over his snag teeth. Suddenly he jabbed the metal against the physicist's flesh.

The breath clogged in Webb's throat, but no cry escaped him. Head still erect, his gaze slanted down as the shining gold point traced a circle on his skin. The pain was slight, for Baron had not broken the skin. A circle of glowing phosphorescence commenced burning there.

It was not until he stepped back that Webb first felt the force of the fiendish torture. It was as though a red hot, jagged rim of glass had been shoved against his chest and was now revolving. Faster it spun, driving waves of pain all through his breast. A blistering fire blazed up under the skin.

"De odder?" Yor asked eagerly, pointing at Marlan.

For a moment remorse triumphed over pain as Webb watched Radic nod. But he masked the emotion, knowing the slightest betrayal of weakness would be the fissure in which the renegade's wedge would be driven.

Jan Marlan pursed his lips and watched calmly as the burning symbol grew under Baron's trembling pen. "Artistic sort of Inquisitioner, isn't he?" he grinned at Temple.

They both laughed . . . two men who knew they must make some sound or scream.

So for ten minutes they carried on a deception that must soon end. Their chests were streaked with fiery marks by the time Baron turned angrily to Radic.

"Then it's the girl we got to work on," he snapped. "If I give these birds any more the stuff will paralyze 'em permanently; and then where'll you be?"

Radic scowled blackly. "Go ahead."

With eager, sickening gulping noises, Yor and Ayo pounced on the girl's cringing form. The tear-brimmed blue eyes sought Webb's over their hunched backs. Marlan looked steadily at the younger man. He seemed to be asking himself which Webb would value higher—a world that had renounced him, or a girl he loved. . . .

Then Webb was shouting insanely. "Let her alone, you damned maniacs! You've done enough. I hope you rot for this, Radic! Give—give me your damned pencil and paper and—and let me rest a minute. I can't even think, jerking like this!"

They cut him loose and let him fall to the floor. Paper and a pencil were placed before him. Radic freed the others and moved over to the shaking, sobbing form on the floor. Swearing softly, he bent over him. Then the roar, the snap and snarl of a dynamo gone wild, filled the room.

Temple had a gun!

RADIC went reeling back with a bleeding face, grabbing for the pistol no longer there. The Martians croaked frantically as they fought their own weapons from under their belts. Baron lunged at Webb. A moment later the upper part of his torso disappeared, blasted into atoms by the force-bolt. Before another shot could be fired, Webb had shattered the dome-light.

Through the blackness, the roar and thunder of force-pistols, he stumbled to find Aline still against the pipe. Marlan loomed up, whispered huskily, "Follow the line of pipes to the door! Then straight through the next room and I'll get you out!"

But they had scarcely found the door when new light flooded the place. An oil line, broken by a bolt, had caught fire! Yor and Ayo whirled in the direction Radic indicated.

"Help me close the door!" Jan gasped that from the side of his mouth. "It's stone. Maybe it will stop them long enough!"

Three blasting concussions had slammed through the narrowing aperture to dig deep niches in the far wall by the time the massive door, nearly two feet thick, had thundered closed. Marlan shot the bars in place.

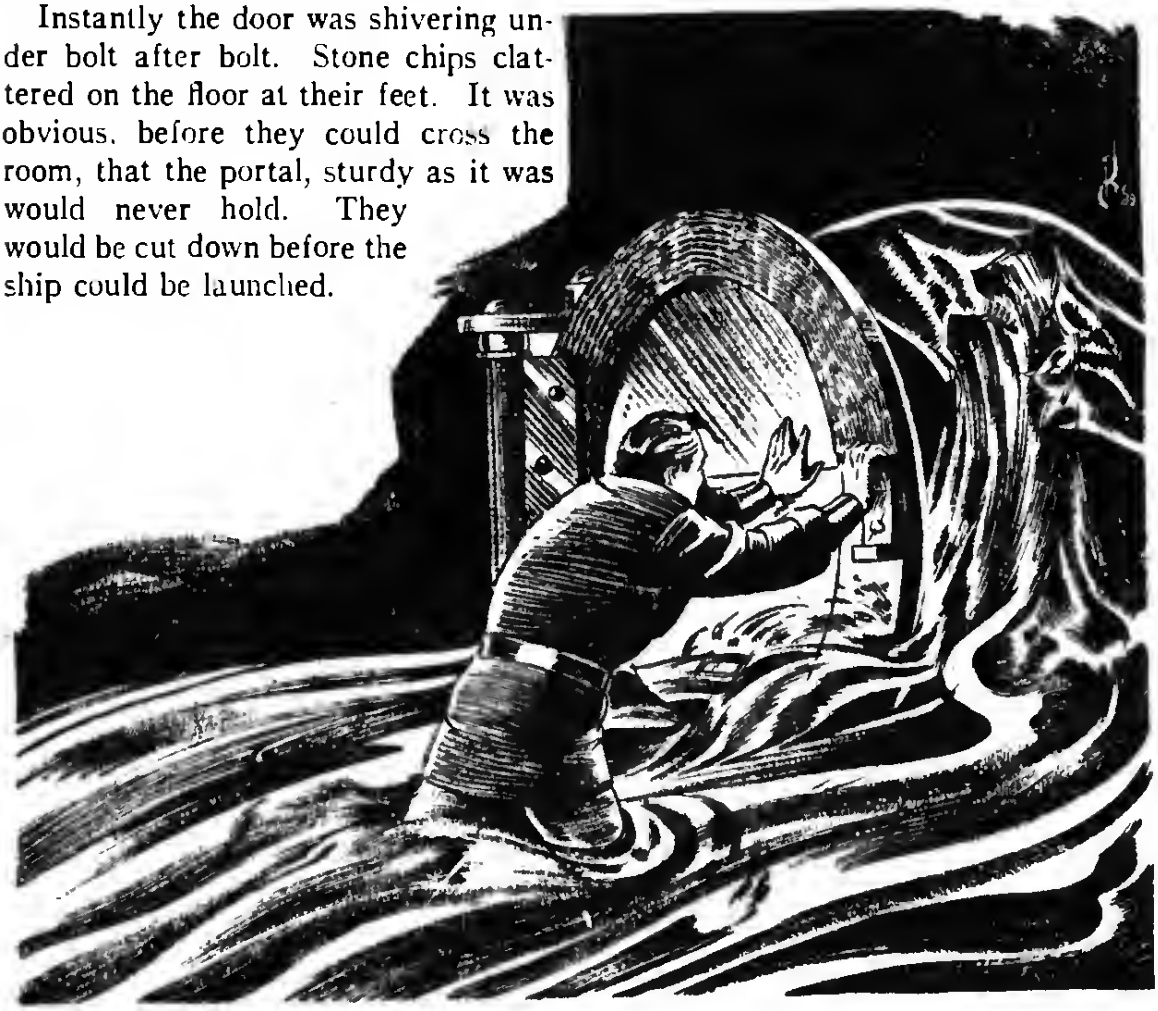
Instantly the door was shivering under bolt after bolt. Stone chips clattered on the floor at their feet. It was obvious, before they could cross the room, that the portal, sturdy as it was would never hold. They would be cut down before the ship could be launched.

Light came into the room as Jan operated the switch. His eyes were pinched, desperate. Somberly he stared at the battery of ancient levers and valves filling the small control-room. He seemed like a man in a dream as he went slowly to a relay of long bronze levers that stabbed up from the floor.

Audibly, he whispered the labels on several of them to himself. His face was expressionless when he looked up. "This is the one chance we've got left. Some of these old valves still work. Pray God this one does!" His hands closed on the tarnished grip of one of them.

Webb watched him stupidly. "What —what's the idea, Jan?"

The surgeon took a deep breath as though to steady his nerves before he replied. "The idea is that the reservoir under the place is still half full, even



though it's three hundred years old. This particular lever operates a pipe running through the other room. I saw that pipe cave in under one of their shots. When I open the line Radic is either going to get out of that room or drown!

CHAPTER V

When Athasia Spoke

FOR a moment Webb could only blink. Then he croaked, "Lord—if it only works!"

Marlan threw his weight back on the bar. From the ratchet at its base came a rusty squall. One after another, the red, rusted iron teeth snapped off. Not until the lever was at its fullest extent back did the surgeon stop.

Softy at first, then more and more noticeably, a low, boiling roar came into the room. The stone floor trembled. The quivering increased until the pipes could be seen to shake mortar loose where they entered the walls.

"You got the right valve—?" Webb asked tensely. It seemed impossible that one small piper, no larger than a foot in diameter, could cause such a violent trembling. Yet none of the pipes in the other room were any bigger than that.

Marlan did not answer. He had released the lever preparatory to leading them out. But before his gaze the lever was slowly being forced closed, as the spring pushed it over blunted ratchet teeth! The significance of it escaped them all for a moment.

At last Jan looked up. He was holding the valve open again. "You've got to get out of here in a hurry," he groaned. "The door may not hold until the room is flooded. The shed is at the end of the building, and the ship is full of fuel. This passage will take you out. *Don't stand there!*" he shouted suddenly. "Get out!"

Webb was stunned by his savage tone. "But if they break through—" he argued, conscious that something was wrong here.

"If they break through I'll blast them to hell with your gun!" Marlan snarled. "Don't waste time arguing, Temple. There's more than any one or two lives at stake here. You've got a world to go back to."

A barrage of shots that almost caved in the door aroused Webb. He flipped the gun over in his hand, shoved it butt foremost to the physician. "I guess this makes us even, Jan," his quiet voice came slowly. "I only wish I could see the end of this fight beside you, too."

For just a second their glances met. Marlan's taut features relaxed. "Don't forget Athasia," he grinned. "Though I can't promise Athasia will remember you!"

There was a shadow of duplicity in his tone, as though the words hid his real meaning. But it was gone in a flash, as he gestured hurriedly. "Now, get on your way. I'll remember you to Max Radic!"

BEFORE they emerged from the tunnel the subterranean roar had become an earthquake that threw them from one side of the passage to the other. Crawling, running, stumbling, the man and girl burst into the cold night air.

Outside, they stopped, amazed at the sight that met their eyes.

From the ragged rim of the crater boiled a thick yellowish fog that spewed high in the air to mushroom out over the city. A monstrous roar filled their ears. Athasia's extinct volcano was erupting!

Webb filled his eyes with one horrified look, then shouted: "Let's go! If

that thing goes off before we get clear, we won't need a rocket ship to throw us a mile in the air!"

They raced into the cylindrical hangar that was like a huge cannon tilted into the air. The tumult of heaving earth was so violent that Webb could hardly get the ports of the ship open and help Aline through. He strapped her to a seat and fell into the pilot's place.

Sweating, trembling, he opened the fuel cocks and switched on the ignition.

Without warning the entire hangar seemed to leap in the air. A huge chasm cleft the ground the ship rested on. Immediately a geyster of mud and rocks and steam shot about it to plaster the quartzite ports with filth.

Athasia's long silence was being broken. That thought drummed feverishly through Webb Temple's head as he yanked the accelerator back against his chest.

A roar of searing energy released. A moment of being crushed inside a fragile metal shell. Then a sensation of freedom, of soaring through space. Webb opened his eyes and glanced out.

Through the cloying mud on the ports, he saw stars gyrating about them, and hurried to put the ship on an even keel. Aline was beside him, suddenly, white and frightened.

Webb's reassuring hand brought hesitant speech to her lips. "Webb, you don't suppose—you d o n ' t think Jan—?"

Webb shot the rocket ship down, to skim low over the crater. He nodded. "I was wondering the same thing," he muttered. "That was no ordinary pipe Marlan opened. It's my guess he opened the valve that let the whole reservoir loose. And where would it empty . . . but into the crater, the most convenient outlet for it! When it struck the molten lava somewhere inside Ganymede, only one thing could happen. Live steam under pressure—there's no telling . . ."

His words choked off. Through the walls of the ship came a bellow of sound that even blasting rocket tubes could not overtone. Horror-born silence claimed them. They were watching a whole city die.

It was like seeing a city of little mud houses crumble when some burrowing animal passes under it. Tall buildings seemed to draw themselves up to their highest, only to twist and fall on the billowing slopes. Immense tidal waves rolled up the island on all sides, immersing the entire waterfront section, with its furtive population.

The rocket ship spiralled lower. Now they could see whole blocks of middle-class residences slide down on the buildings below. Fires struck up here and there where gas mains caught stray sparks. In the red glow they watched men milling in the streets, saw them turn on each other like rats in a burning box.

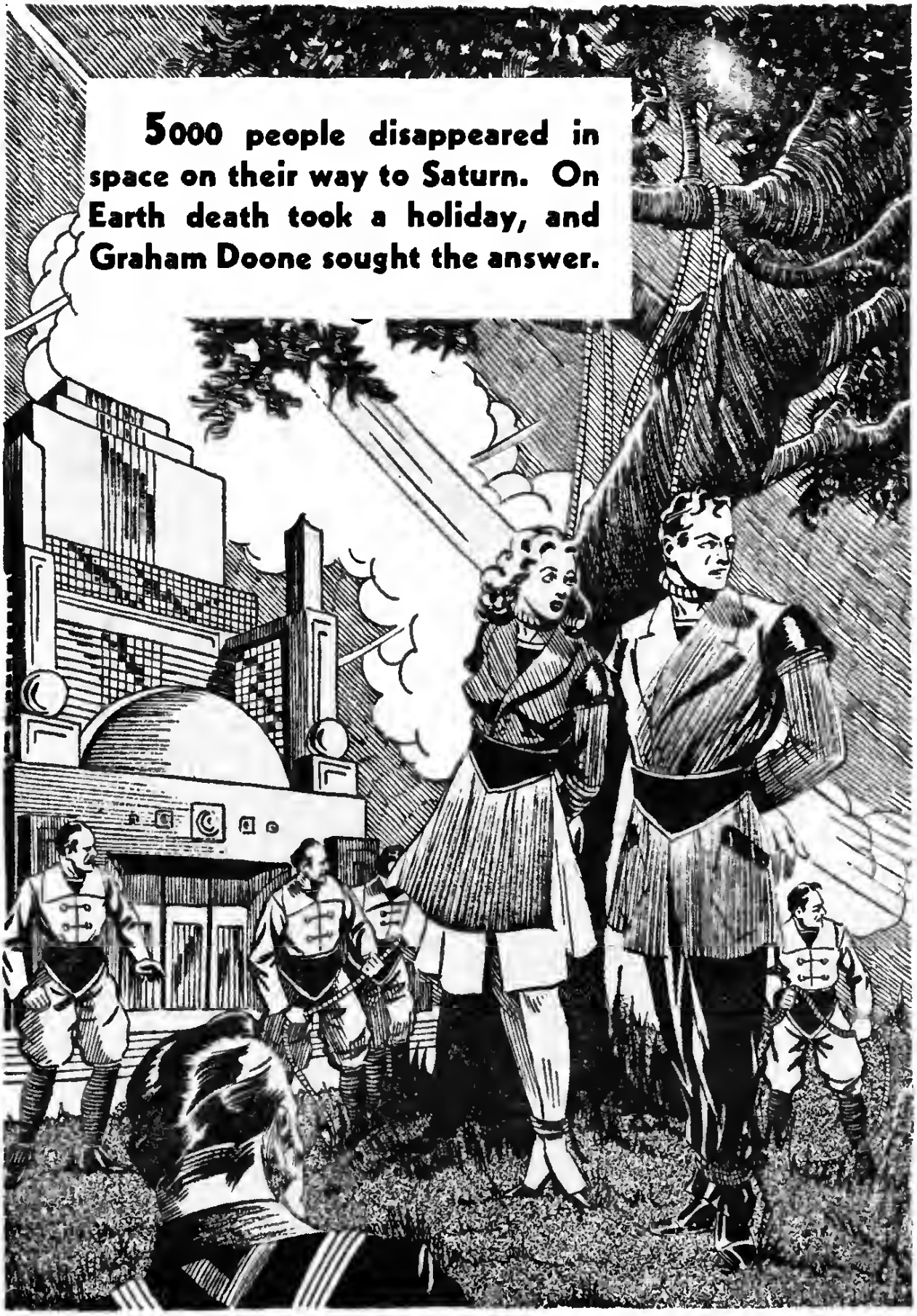
Webb's face was grim as he dropped the craft down above Jan Marlan's home. Nothing remained but a brick-pile of ruined splendor. But even while their eyes studied the heaving terrain anxiously, three figures were outlined in the path of brilliance their cruising lights sprayed downward.

Two yellow-garbed forms and one man whose coppery clothing caught reddish wrinkles of light. Of Jan Marlan there was no sign.

Then those three figures disappeared, too, as the crater vomited its gorge of boiling mud over the brim and immersed them.

There was a sickness in Webb Temple's soul that he was not to forget for long months. He whirled the ship up again. When they levelled off, five

(Continued on page 131


5000 people disappeared in space on their way to Saturn. On Earth death took a holiday, and Graham Doone sought the answer.

WORLD Without DEATH

By Polton Cross

CHAPTER I
A Scientist's Secrets

IT was the weeding out of scientists and inventors that brought to light the quiet, slender Janice Milford—scientific theorist par excellence, a girl who had apparently crammed into her youthful life more scientific knowledge than a clever man could manage in a full lifetime.

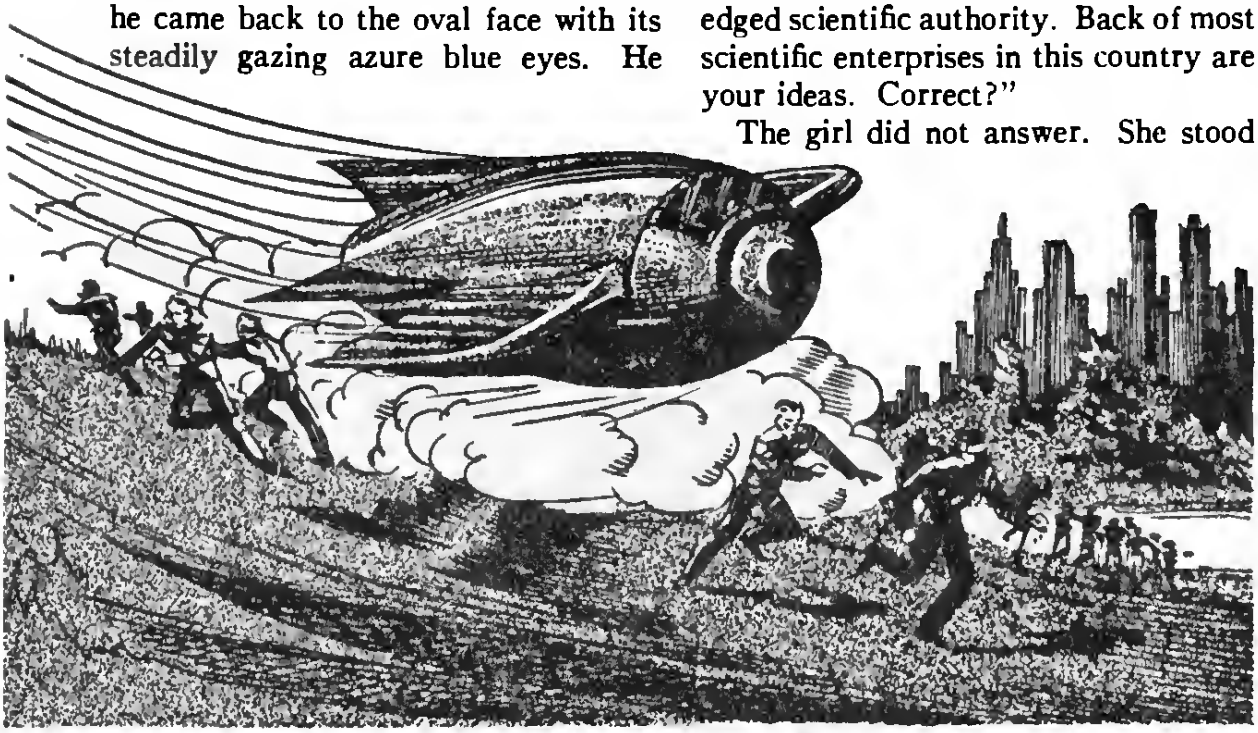
In the Judgment Hall, presided over by Abel Dodd himself, the girl revealed no trace of fear as she was ordered to step out from the ranks of the brilliant captives around her.

With majestic calmness she walked forward to the little railed dais, became the focus for the eyes of the grim faced, specially selected jurors, and particularly the glittering, snaky orbs of Dodd.

For a long time he studied her in silence, allowed his gaze to encompass her from the fluffed golden hair round her shapely head to her trim little feet. He eyed her blue silk dress, rent and torn with the rough handling she had received, brooded on the white flesh that peeped through the gaps. Then at last he came back to the oval face with its steadily gazing azure blue eyes. He frowned a little at the tiny glow of contempt he saw therein, the twisted, cynical smile on her finely molded lips.

"Janice Milford," he said slowly, his thin, cruel lips hardly moving as he spoke, "you are, we understand, an inventress? A scientist? You have been cited as America's foremost woman thinker. In three years you have forced yourself from obscurity to acknowledged scientific authority. Back of most scientific enterprises in this country are your ideas. Correct?"

The girl did not answer. She stood



perfectly still, her small white hands on the bar of the dais.

Dodd scowled, resumed with menacing slowness.

"Some little time ago you stated that you had the secret of atomic force—even space travel. Also you have ideas about the cosmos which are far beyond normal science. You are a mathematician and physicist. . . . Janice Milford, we demand every one of your secrets and order that you shall work entirely for our benefit. Is that clear?"

The girl slowly shrugged, asked in a soft voice.

"And if I refuse?"

Dodd's lips twisted into a sensual smile. "If you refuse, you will be forced through physical suffering to give up your secrets. Either way we shall win: it lies in your hands whether you choose the easiest or the hardest way."

"I see." The girl's faintly cynical smile broadened a little. "This seems to be as good a time as any to speak my mind. I tell you right now—tell all of you murderers sitting around me—that not one of my secrets shall pass into your possession. Do what you will with me, torture me until death if you wish. . . . But I will never speak!"

There was a little gasp of amazement from the assembly. Abel Dodd stared blankly for a moment: this was unheard of! A mere slip of a girl defying his edict.

"Do you realize," he breathed viciously, "that it is in my power to—"

"I know all you can do," the girl interrupted coldly. "I think it would be better if you stopped wasting time!"

She was sublimely calm and unmoved, so much so that Dodd felt irritated. A woman of acknowledged genius locking her secrets up so securely was more than he could tolerate.

"Later, p e r h a p s, you will have learned sense!" he barked, making a motion to the guards. "Take her away, and when she is more tractable notify me . . . . I'll break you down, Janice Milford, if it's the last thing I ever do!"

He watched her half dragged, half carried from the hall to an ominous black door on the right, then he turned to survey the remaining victims of his merciless inquiry.

THE closing months of 1959 were destined to be written down in American history like a catalogue of horrors, as a period when for the time being the progress and peace of the United States was interrupted by civil war.

Nobody quite knew how it happened: it just *did* happen. A sudden determined march, and back of it all as champion of the oppressed and bearing the torch of liberty loomed one Frederick Marden. He precipitated the revolution which only had its equal in the fargone dark days of Russia's remaking.

Unquestionably Frederick Marden believed in his cause, was out for justice. He could not be altogether responsible for the lawless hordes who operated under his banner, who defeated police and army alike in their savage uprising against civilization itself.

In October, 1959, the trouble started, until by the end of November, through violence and open murder, the Frederick Marden party had established itself in control of the entire country, had so far avoided open civil war by very reason of overwhelming numbers. But the civil war menace was by no means over. Somewhere in America there still remained the Graham Doone, implacably determined to rout Frederick Marden no matter what the cost. Until Doone was found Marden could not possibly rest content.

By December, 1959, the threat of Graham Doone was less tangible. Marden was in power, was to all intents and purposes the new President of the United States. But unhappily Marden was not alone. His Minister for Control, Abel Dodd, was a flint hearted and merciless scoundrel. He it was who instituted a reign of terror over America that would have done credit—had all the true facts been revealed to the world—to the Spanish Inquisition.

Abel Dodd terrorized men and women alike. Other countries, gathering drifting details, were up in arms over Dodd's methods, but because interference might mean war they stood aloof, and America went on suffering. But somewhere, still unfound, Graham Doone awaited his opportunity to strike. . . .

One by one, former celebrated master minds, men and women, began to disappear, their wealth and knowledge going to swell the Marden party's resources. The cleverest brains in the land were forced under torture or pain of death to supply their services to the new regime. Inventors were compelled to give up their every secret in order that the regime might gain sufficient scientific knowledge to one day make an attempt to master the world itself. . . .

WHEN his work was at last finished he lost no time in visiting the basement below the hall, paused as he entered the grim looking place replete with the heinous machinery by which he usually forced prisoners to obey his will.

In bitter silence he glowered down on the half stripped, silent figure of Janice Milford, lying against the wall on a pile of straw. Savagely he seized her arm, swung her over, stared down into her bruised, blood streaked face. Her blue eyes looked back at him in dumb contempt. He noted her blackened nails where hot iron had seared them away, the torn flesh beneath her arms where pincers had done their deadly work.

"Well, will you speak?" he demanded at last, standing over her. "Or would you like more?"

"Kill me if you wish," she replied quietly. "I'll never speak . . ." Then she turned over again and lay silent.

Dodd's brutal jaw set squarely. He swung around savagely on the half stripped guards by the doorway.

"Why the hell didn't you make her speak?" he snarled.

One of the men shrugged. "Guess I never saw a dame so tough, chief. We tried most things—and slowly too. All she did was to smile, until we beat up her face a little—"

"Get her secrets or suffer the same medicine!" Dodd snapped. "That's final! One thing only have you got to remember. Not one vital faculty must be destroyed: she'll be needed later. Advise me how you go on. . . ."

He glared round, then went back up the steps into the main hall, turned sharply as the head office visiphone came into being on the wall. The square, rugged face of Frederick Marden appeared on the screen.

"Come up to the office, Dodd!" he snapped. "Immediately!"

Dodd nodded insolently, walked up the great staircase from the hall and entered his superior's great office. Marden eyed him with steady gray eyes across his desk.

"It might interest you to know, Dodd, that while you have been so busy hunting down inventors and scientists, Graham Doone has been busy," he said slowly. "Yes, you can stare! If you'd taken the trouble to direct your attention to vital matters it would never have happened. As it is, Doone has succeeded in commandeering an entire army unit in Chicago, complete with

airplanes and munitions. Obviously that is where he has been hiding out all this time. What is more, thousands are rallying to his banner."

"WELL?" Dodd asked sourly. "Doone doesn't scare me none. We can thrash him and his whole army—"

"We *may* do so!" Marden broke in bitterly. "If I know anything of Doone he will not stop until one or other party is extinct. It's too late now to stop him. That was your job, only you were too busy torturing men and women."

"As far as Janice Milford is concerned, it's necessary!" Dodd retorted hotly. "You know as well as I do that she has marvelous inventions, and—"

"I know it, and if you'd have had intelligence instead of brute emotions you'd have won her cooperation by a proper outline of the cause we stand for. Instead you use barbaric cruelty that goes right back to the medieval." Marden got to his feet, his face set in relentless lines. "Dodd," he said slowly, "your brutality has got to stop! We're working for justice, not power through inhuman cruelty . . . Through that very reason, your panderings to it, we stand now with a civil war on our hands. Beyond any doubt Graham Doone means to strike at us—and hard!"

"Well, what do you want me to do?" Dodd's face was sullen after the upbraiding he had received.

"Marshal all your forces and man power immediately. Drop everything except military preparations. Release all prisoners and use them to swell your man power."

"What! Even Janice Milford!" Dodd's face was a study.

"Even Janice Milford," Marden nodded coldly. "She'll be useful somewhere. We'll return to the matter of her secrets when the war's over."

"But, damn it all—"

"Get going!" Marden snapped, and watched in grim silence as Dodd went slowly from the office.

CHAPTER II

Civil War

ON January 3, 1960, a week after the general mobilization call had gone forth from Marden, Graham Doone marched to the attack. He was commander-in-chief of his own army, an army made up of men and women of whom only a minority of the former were professional soldiers. The rest was made up of business men, even women, now more hard bitten than any old campaigner.

Unquestionably, Graham Doone's personality had had a lot to do with his present uprising. Successfully hiding himself from Marden and Dodd, he had gathered together an army of pretty formidable proportions which had taken over vast quantities of fighting material from the new regime, even though it had demanded a small war in itself to accomplish it.

Abel Dodd, so intent had he been on gratifying his own vicious desires, had not the time to marshal together his own army. He had labored under the idea that he was impregnable. He got the shock of his life when Graham Doone's first onslaught by bombing airplanes and guns caught him utterly unprepared.

Determined to defend what he believed was the only right form of Government until the end, Marden himself went on with the organizing, became commander of his hastily gathered armies and launched a counter attack.

By January 12 America was in the throes of a desperate civil war, the battleground covering the entire area from New York to Los Angeles, the air thick with hurtling planes as brother man hurled himself against brother man, as demoniac forces blasted innocent thousands to destruction, thousands who only knew the whole business had started because two factions could not somehow agree. True, that was the basic cause, but in the fashion of all wars the upheaval rapidly degenerated into filthy slaughter and destruction in which the vast majority lost all idea of what they were fighting for. Only Marden and Doone, on opposite sides of the fence, knew that—and each was determined to win.

Marden had the hardest task. For one thing, Abel Dodd was dead with a bullet through his brain: that deprived Marden of a good field expert, one that he had not the time to replace if even he could have found the right man. Doone for his part was well supplied with experts, master minds of business whose job it was to organize and plan—and, in wartime with devastating results on the enemy.

THEN toward the close of January something peculiar happened.

A whole day's hand to hand fighting in the civil war failed to produce a single casualty on either side! People who had been trapped in fires had walked out unburned: those directly fired at with rifles had not been scratched.

Nor was the astounding happening limited to unhappy America: the whole world reported the mystery over the radio. Only in cases where absolute smashing of a body had occurred had death resulted. Otherwise, thousands of everyday accidents the world over had failed to produce any deaths or serious injuries.

When Marden received the news he did not know what to think. For his own part he felt no different; a little tired perhaps, but that was not to be wondered at. And yet, there *was* a subtle difference, now he came to ponder it. Alone in his great office, pondering over the vast map from which he was planning his attack, he took a few seconds from harrassing details to study himself. His gaze dropped to his hands. They were changed in some way—the skin was thicker and darker than it had been—coarser.

Frowning, he got to his feet and pressed the light switch, flooded the room with a brilliance that paled the single desk light. He went to the mirror and stared at the grim face reflected to him. Undoubtedly there *was* a change! For several weeks he had hardly been outside—even when he had only met the icy cold of the New York winter. Yet now he was as brown as though he had been exposed to free ultra violet radiation. Again there were the evidences of coarsened skin. Puzzled, he rubbed his cheeks. They were curiously sensationless.

He shrugged, felt unable to cope with the intricacies of his condition. More important matters demanded his attention. Baffled, he went back to the map, switched on the visiphone and issued further instructions to the field of action.

But little by little both he and Doone began to realize they were up against an inexplicable problem. For unless they scored direct hits at human beings —and that with high explosive—their efforts were useless. Bullets made no effect whatever. For some unknown reason all human beings were getting incredibly tough and resistant to attack. Everywhere it was the same.

Death roll from the civil war

dropped amazingly: armies fought against armies with little result beyond waste of time and money. Neither side accomplished anything. War was suddenly and mysteriously stalemated. There was nothing for it hut to declare a truce, so for the first time, on the evening of February 2, Marden and Doone met face to face in the former's office.

IN silence, hoth surrounded hy their respective experts, the two men faced each other. Marden stood stiffly at his desk, his ruggedly chiseled face turned into a mask of shadows hy the desk lamp. Appraising him stood Doone, thirty-two years old, dark headed, even handsome, carrying his powerful frame with all the erectness of still youthful purpose. His hlack eyes, the deep set eager eyes of a dreamer and doer, stared coldly back across the desk.

"Marden," he said quietly, "it's time to end this carnage. Time we reasoned the thing out like sane men. I'd have done so long ago only you—"

"I have always been open to negotiation," Marden answered curtly. "Isn't it rather strange that you arrive at this time with the idea of a truce, when the real reason is that war is hecoming impossihle for hoth of us? How can there be war when human heings are becoming invulnerahle. That's the real reason, isn't it?"

Doone hesitated hriefly, then nodded his dark head.

"Yes, I guess it is. The only thing we can do now is cooperate—even as we should have done in the first place. We must begin again on a new footing. You and I must work together for the common good, pool our respective ideals."

"Possihly that can be arranged," Marden conceded, thinking. "And I want you to understand right now that I never agreed with this civil war. I intended to cooperate in the very manner you have now suggested—hut power was not altogether in my hands. Abel Dodd, for instance. He did untold harm to the cause. When you justifiably fought hack, the only thing to do was to hold my ideals above all else and retaliate. You understand?"

Doone slowly nodded. "I think I do —and I believe we can get together. In any event hostilities must cease forthwith and an immediate investigation of this strange deathlessness must he instituted . . ." He paused, looked at Marden long and earnestly, then added, "Tomorrow the terms of the new deal will be officially drawn up. Then, if we can, we will try and write a better page in American history. . . ."

Marden's stiffness relaxed a little. He gave the slightest of acknowledging bows, watched in silence as Doone turned suddenly and departed with his advisers.

THE world hreathed more freely with the end of the American Civil War. The danger of incidents and international complications were removed. Trade restarted: America turned to the task of rebuilding after the struggle. By degrees, Marden and Doone, working in collahoration, achieved a satisfactory basis of understanding. Even as early as the close of April, 1960, a definite halance of relations was heing estahlished.

And still the world faced its new problem—the still ever present mystery of deathlessness. Through the months following the close of the war the strange transformation of humanity had gone on—that slow, hardly perceptible thickening of the skin, a general toughening of all organs, a metamorphosis in the epidermis of men and women alike which had gradually given them the

power to defeat death itself, except in cases of violent accident.

Nor was that all. Newly born children possessed the same peculiarity! Disease and death in the ordinary sense had mysteriously evaporated from the world. Death only existed in circumstances where an entire body was destroyed. Injuries healed with incredible rapidity and minimum of blood loss. Births were unchanged in number, but the death rate dropped 75 per cent below normal.

Scientists the world over began to study the problem industriously, but beyond producing highly t e c h n i c a l treatises on skin thickening arrived at no convincing conclusion. Governments began to urge them to investigate more closely. The absence of normal death rate was beginning to have grave effects. Population was increasing by leaps and bounds all over the world.

Doone and Marden, co-Presidents of America, were faced with this same problem. Day by day the special census returns revealed the startling increase in humanity. There were dozens of births to only one death. Marden, at his wits' end to know how to tackle the mystery, suddenly remembered Janice Milford.

"I BELIEVE," he said thoughtfully, as he and Doone pondered the matter, "that she's the one person to get to the root of the mystery. Maybe you've heard of her?"

"Few people haven't," Doone answered quietly. "But I'm also remembering the brutal treatment she got by your former Minister of Control because she wouldn't give away secrets. What makes you think she'll help now?"

Marden shrugged. "I can only put the question to her. I think she realizes I had no part in her torture. In fact I had her immediately released on the outbreak of war, and during that time she did a great deal of good in the nursing line, invented the most amazing remedies for our fighters. However, no harm in seeing what she can do for us."

He switched on the visiphone, said briefly, "Send a fast car over to Miss Janice Milford's place and ask her to be good enough to come here immediately."

He switched off, turned to resume his study of the situation with Doone. Some twenty minutes passed, then they glanced significantly at each other as the clerk announced the girl. Janice Milford came in quietly, attired in a neat blue costume and bewitching hat.

"I believe you wanted me, gentlemen?" She looked from one to the other with her clear blue eyes.

"I sent for you, Miss Milford." Marden held out a chair for her, dismissed the clerk. "There are one or two matters afoot which I feel only you can understand," he added smoothly.

"Such as?" The girl's voice was by no means compromising; rather it was cold and unyielding. Clearly the memory of Abel Dodd and his cruelty had by no means departed.

"We believe," Marden said slowly, sitting down again and clasping his hands on the desk, "that you can solve the present world mystery of deathlessness where other scientists have failed."

THE girl was silent for a time, unaware of the unwavering gaze of admiration she was getting from Doone. From the instant she had entered the room he had never taken his eyes from her lovely face.

"You really mean that because all other scientists have failed to solve the mystery I'm about the last resort?" she asked dryly, her lip curling. "Very flattering, gentlemen. Last time, as I remember it, there was no such request.

I was ordered to assist you and because I refused I was tortured. Perhaps I hardly need to add that such brutality is not easily forgotten?" she finished bitterly.

"Of course not." Marden coughed a little. "But—but, Miss Milford, that was the work of Abel Dodd: you must realize that. I had you released. In these days you are back where you were—a much respected scientist. All we ask is your aid. Whatever you desire will be given in return for your services, be it honors, money— Whatever you wish! A crisis is rapidly approaching through this steady increase in population, and we have got to have a solution somehow. Please believe that I speak truth."

The girl's perfect face softened a little: she even smiled faintly. Curious, Doone reflected, how little changed she seemed compared to other people. There was on her skin no trace of the thickening effect so noticeable in others. He remarked too the perfection of her manicured nails, remembered they had once been charred. He frowned a little, felt a slow surge of hatred against Marden who was, at the root, the cause of that brutality.

And suddenly the girl's eyes were upon him, studying him silently. He smiled at her, rather uncertainly. That seemed to decide her. She turned suddenly back to Marden.

"Very well, I'll believe you," she said briefly. "I'll get to work and see what I can find out. Probably by tomorrow morning I will have arrived at some conclusion. One or other of you had better come round to my laboratory. It's so much easier to explain there, with all the instruments around me—"

"I'll come!" Doone interrupted eagerly, as Marden was about to offer. "About what time?"

"Oh . . ." She demurred. "About ten tomorrow morning. I'll be expecting you . . ."

"We cannot thank you enough, Miss Milford," Marden said, shaking her slim hand. "Rest assured that I have always admired your powers, and still do—that I had no part in that recent dreadful business. And now, whatever your fee may be for—"

"I rather think the fee can be arranged at the close," the girl broke in softly, smiling in an enigmatical fashion. "I have my own ways of working, you know, and probably I'll be amply repaid in the end . . . even without money." She paused, turned to the door. "Tomorrow at ten?"

"Without fail!" Doone eagerly held the door open for her, was rewarded by her quiet, feminine smile as she passed out into the corridor. Once he had closed the door he turned.

"There, Marden, is a woman!" he declared in admiration, dark eyes shining. "Brains, beauty, poise—"

"She's a scientist," Marden said curtly. "And we are working for the good of the people. Don't start mixing your ideals with other emotions or we'll soon find trouble. . . . Come and sit down, man; see if we can't figure this matter out."

Doone sat down, but for the rest of the day he was curiously listless. His mind was definitely not on his work. He simply could not get Janice Milford out of his thoughts. Every woman he had met or handled up to now had failed to make his heart alter its rhythm in the slightest, but now. . . .

Definitely Janice Milford was a woman!

CHAPTER III

The Mystery of Janice Milford

AT 10:00 next morning Doone presented himself in the huge research

laboratory attached to the girl's rebuilt New York home. The laboratory astounded him with its completeness, its air of clean activity, the men and women in spotless overalls moving to and fro amongst benches and machinery. In silence he looked along the rows of great windows, with their automatic steel shutters for producing artificial darkness when necessary, gazed round on the instruments catching the bright spring sunshine.

Then he turned with a little start as a soft voice fell on his ears.

"Good morning, Mr. Doone! Right on time, I see . . ."

The girl was behind him, the sunlight turning her golden hair to a halo. If anything, the white belted smock she was wearing served to enhance the soft curves of her figure, reflected an added light to the perfection of her features. Doone was aware as he eagerly greeted her that the cynical light in her blue eyes had disappeared. He read only friendliness as he shook her small but capable hand. He rather wished he was not a co-President with business ideals. A laboratory technician's post would have suited him much better.

"Well, did you find anything?" he asked quickly, trying to remember the dignity his position demanded.

"I think so," she nodded briefly, and turning led the way along the laboratory to yet another department, entirely empty of assistants but filled with a mass of highly polished, intricate machinery. Doone followed her into the place, glanced at her in puzzlement as she closed the door.

"I guess you've enough assistants and apparatus in here to run a high powered business," he commented. "Am I asking you to betray secrets if I ask what it's all for?"

"Not at all," she smiled back. "Science happens to be my business, that's all. It was my work before the war, and it is now. Back of almost all patent medicines, drugs, health tonics, new electrical gadgets, explosives, and so forth, you will find the name of Janice Milford. I am, I suppose, the head of a great supply factory. Most of the things are my original invention, perfected and manufactured by this trained staff of men and women chemists and scientific experts. Finally the ideas are marketed through the appropriate channels. That I suppose is the blessing of having a good brain," she finished enigmatically.

SHE turned aside suddenly, paused before a glass globe filled to the brim with a curious sticky fluid. Floating within it was a mass of tissuelike substance which made Doone stare in amazement.

"What on earth is it?" he gasped, somewhat horrified.

"Synthetic flesh," Janice replied calmly, eyeing it critically. "It is simple enough to manufacture. The hard part comes in when you try to infuse it with life. I haven't done that, of course, but as it lies there in the fluid it reacts—by very reason of the fluid—far more quickly than normal flesh to external stimuli. Look at it closely. See anything wrong with it? It was manufactured and put in the globe yesterday afternoon after my talk to you and Marden."

Doone studied it thoughtfully. "Looks kind of—of thick," he said at last. "The difference between this stuff and ordinary flesh is about the same as that between raw and cooked meat."

"Exactly. In other words, it is in a state of progressive anabolism. There is no normal breaking down of cells with consequent age and finally death. The same thing is happening to it as is happening to all living things in this

world. Anabolism alone is present, and the opposite state of cell breakdown—ketabolism—has disappeared entirely. What is the result? Skin thickens upon itself: there is no breakdown of cells. Little by little flesh and blood beings—in fact all living things—are becoming invulnerable in a shell of hardness through which not even a bullet can pierce. Hence no ordinary accidents can cause injury: only direct hits to a vital center, and that with great force. Even normal death rate is down because death is normally the outcome of ketabolism in its final stages. Is that clear?"

"Clear enough," Doone nodded. "But the reason is not!"

"The reason," the girl said slowly, "is almost incredible. I can give it in a few words—cosmic rays have ceased!"

"But how can—"

"So far," the girl went on steadily, "scientists have concerned themselves with studying the mystery by examining human beings. They have neglected to look at outside sources. I have examined the problem from the interstellar angle, have found that Wilson cloud chambers reveal no sign of cosmic rays emanating from outer space. Normally, as you know, the cosmic rays produce a shower of electrons and positrons when stopped by matter. The Wilson chamber traces these showers individually and the energies of production can be measured. . . . But now there is absolutely nothing. That in itself explains the mystery of the sudden deathlessness sweeping the earth."

Doone looked puzzled. "Just how?" he asked, thinking.

"Well, it is generally known that cosmic radiation falls on earth in considerable quantities from a source in space unknown. Consider its powers of destruction! Every second it breaks up twenty atoms in every cubic inch of atmosphere, millions of atoms in each of our bodies. It is also admitted that this radiation, falling on germplasm, may produce the spasmodic biological variations which determine evolution. . . . In other words, instead of the gradual breakdown of our bodies under cosmic waves, the breakdown has ceased. Complete anabolism reigns instead and, so to speak, time and evolution have halted insofar that we are not actually ageing while no disintegration of our bodies is occurring."

DOONE was silent for a long time after the girl had finished, then he asked slowly,

"But *why* has this happened? What could produce such an effect?"

The girl shook her head. "That goes beyond me, Mr. Doone. I only know the effects, not the cause. . . . "

She turned aside, meditating, went over to the bench. Doone joined her, waited for her to speak.

"I realize one thing very clearly," she said slowly, "and that is the terrible danger which threatens through the absence of natural death. Take even a small instance—say, oysters or sea urchins. They produce millions of eggs annually. If all those eggs are destined to reach maturity our seas will be clogged from end to end within a year! Everything that lives is doomed to increase at top speed! Plants, trees, even lowly bacteria, human beings. . . . If this condition continues for even six months the earth will be crammed with living things of varied sorts from end to end. In a year there will not be room for everything. Seas overloaded, lands crammed tight. . . . "

"High explosives can still destroy," Doone reminded her.

"True—on animals, bacteria and plants. But what of human beings? After all, every one of them has a right

to live. That we shall stoop to wholesale massacre is unthinkable."

"Then what *can* we do?" he demanded helplessly. "We have only earth to move about in—nothing more."

"We have outer space — other worlds."

Doone laughed shortly. "Forgive me, Miss Milford, but isn't that rather a wild dream? Space travel isn't practical. You may remember Brandon Hurst's mighty effort to reach the moon about four years ago? He failed utterly—was lost in space."

The girl slowly nodded. "Yes, I remember him. He invented the first supposedly practical rocket ship and aimed for the moon, taking his wife and daughter with him. That's right, isn't it?"

"Yes—but he never landed on the moon: that's the point I'm trying to make. The failure of his invention proves space travel to be impracticable."

"Yes. . . . " Janice reflected for a while, said presently, "I had a great admiration for Brandon Hurst. He was a scientist in a million. At that time, unfortunately, I was not sufficiently well known to be connected with him, otherwise I'd have offered to go with him—"

SHE broke off, made a little gesture. "I'm afraid this isn't getting us anywhere, Mr. Doone! The problem we have to solve is a method of space travel far more effective than that of Brandon Hurst. Unless this cosmic ray blockade breaks down very quickly we will be overwhelmed by a rampage of growth. Space travel is the only way out. . . . "

"As co-President," Doone said slowly, "I could of course give orders that all marriage must cease. If not marriage, then at least children. Birth must stop until matters equalize."

"Your orders will only apply to America," the girl remarked. "Other countries may not agree with the idea, despite its logic. Even if it did become a world order it still would not stop human nature having its fling. Children will go on being born in spite of whatever orders there are. . . . No, Mr. Doone, exodus from earth to other worlds is the only course open at the moment."

"Another thing!" Doone exclaimed suddenly. "If this cosmic ray failure is universal, or at any rate limited to our particular system, the trouble will be the same on any world plants, that life of any sort on other planets, that life too must be deathless and multiplying, even as it is here."

Janice shrugged. "With the possible exception of Mars and Venus, I am quite convinced that all the other worlds are totally dead," she said quietly. "No life has ever been on their surfaces, probably there never will be—unless we put it there. The cosmic ray failure will make no difference to them. If we can conquer space we will move some thousands of Earthlings to the world of our choice—a world where there is at present no life—and once we have established them there your system of controlling birth from the very beginning can be brought into effect.

"You will have a new and fixed community to control—new laws. That will be very different to interpolating new laws into the present order of things. That law will stand until cosmic rays return—if they ever do. We must thin out the people of Earth—divide the population over two or more worlds if possible, then take the necessary steps to prevent birth and destroy all other growing things as fast as they appear. A ceaseless war against nature, and a truce can only come when cosmic rays return."

DOONE nodded slowly and smiled. "You've got the right idea all right. You even talk as though the secret of perfect space travel is just around the corner. I wish I could believe that."

"Perhaps you can. . . . " She smiled at him mysteriously. "I may be wrong, of course, but I think if Brandon Hurst could manage what he did—badly though he finished up—I can do likewise. Without egotism, my knowledge of science equals his."

"I'm the first to admit it. . . . " Doone fell silent, looking at the girl's lovely face, then presently his gaze dropped to her slender white hand resting on the bench. His brows knitted a little. "Odd, isn't it," he murmured, "that with everybody else turning brown and thick-skinned you retain a smooth, satiny perfection of appearance? It's puzzled me a lot."

"Has it?" She seemed almost amused. "Well, of course, the brownness and thickening of skin is caused by cellular increase. Skin is somewhat reflective of light: a deeper epidermis produces less light reflection and a consequent dull brownness akin to that produced by ultraviolet. As to me. . . . Well, I'm the inventor of all manner of drugs and medicines, as you know. One particular formula keeps my skin as I like it to be. Just the same, I'm as tough as anybody else. See. . . . "

She reached forward and took a sharp, glittering knife from its rack. Calmly she sliced the vicious blade across her extended white palm. Doone winced involuntarily, expected a welling up of blood, so fragile and dainty did that palm appear. But nothing happened. Not even a mark. He took the knife and ran the blade across his own hand, but as he had expected its toughened state prevented any injury. But the difference between his hand and the girl's was about the same as between leather and tissue paper. He looked up suddenly to meet the calm scrutiny of her blue eyes.

"I guess you're a good deal tougher than you look," he murmured, handing the knife back.

"Yes. . . . " She nodded slowly, added bitterly, "So Abel Dodd found out when he had me tortured—"

She stopped suddenly, surprisingly so, switched the subject with an obvious haste.

"I think the only thing to do is to try and locate Brandon Hurst's plans for his original space ship," she said rapidly. "Then I'll try and improve on them. That's where you come in. Use your authority to make it possible for all data on Hurst's work to be submitted to me without delay. There will be records of his work with the patent offices,

I expect. Secondly, I want all first class astronomers to make a detailed study of the planets. I will do likewise and see how far my observations check with theirs. That can be done?"

"Immediately," Doone promised, and turned to go. Then with a hesitant movement he turned back again, shook the girl's hand gently. "I—er—I've enjoyed every minute of this," he murmured. "It's such a pity we're faced with such world wide issues, otherwise perhaps. . . ." He broke off, shrugged. "Forget it! I'll notify you the moment I get results."

He released her hand, turned to the door. But as he left the laboratory he was haunted by a curious remembrance—something the girl had said that somehow did not fit into the general scheme of things, a statement at variance with truth. What it was he could not for the life of him recall.

Only one fact remained predominant before him. For all the curious air that hung about Janice Milford she was not *a* woman, but absolutely *the* woman.

CHAPTER IV

Nature Gone Mad

DOONE lost no time in putting the girl's demands into effect. The patent offices were immediately toothcombed, all newspaper files and scientific journals containing the vaguest hints of Brandon Hurst's space ship, together with color photographs of the inventor, his wife, and daughter were gradually produced, to be immediately rushed to the girl.

A week passed and she made no observations—a week in which the trouble in the deathless world grew to alarming proportions. The oceans, even as the girl had predicted, were already becoming difficult to navigate. Algae, seaweed, together with multimillions of small sea creatures, were multiplying with such terrific rapidity that they got entangled in ships' screws, impeded the passage of passenger and commercial sea traffic. Prices for foodstuffs began to soar through the very difficulty in obtaining them—and when it arrived half of it was rotten through the festering increase of bacterial basis.

In the air a tremendous increase in bird life began to harass pilots: the skies were thick with flying life of all types. . . And down on the earth vegetation crawled along at a steady, inevitable pace, snaking its way so rapidly into buildings that armies of men, specially employed for the job, found it traveled far quicker than knives and burnings could destroy it. Parks overflowed with bursting masses of green, aided by the summer heat. Grass sprang up through solid roads. Windows smashed under inquisitive tendrils. Utterly bewildered, mankind found himself blundering around in a world where Nature had utterly gone mad.

DOONE was thankful when at last Janice visiphoned him to come over to her laboratory. He found her as cool and collected as ever, with still that hint of mystery about her steady eyes.

"Well, found anything?" he questioned eagerly, the moment he was shown into her presence. "Matters are getting to a pretty desperate pitch even in this short time. . . . Still, I've held off issuing any special orders until I had your observations."

"Just as well, perhaps," she smiled. "I've got the reports of the various astronomers, together with their spectroscopic and other tests of the planets, density, atmospheric records, and so on—a pretty complete mass of data which

checks exactly with my own notes. . . . But more of that later. What chiefly concerns us right now is that I believe I can improve on Brandon Hurst's space traveling formula far enough to produce foolproof effects."

"You can!" Doone gazed at her in wonderment. "Say, where do you get your knowledge from?" he breathed.

"I guess that doesn't really matter, does it? Now, see here."

Moving to the bench she pointed to the blueprints lying flattened upon it—faultlessly drawn blueprints exact to the last detail. In silence Doone listened to her as her long index finger traced across the prints to explain her meaning.

"These plans are my own, based on the original idea of Brandon Hurst's plans at the patent office. He used a rather clumsy system of rocket control which demanded a large generating plant and a great amount of space for fueling chambers. That maybe is why he failed in his attempts. . . . I shall use a similar method, but with a far greater degree of certainty. I shall use atomic power."

"The secret Abel Dodd tried to extract from you?"

"The very same. You see, a beam of power derived from smashing atoms generates a terrific recoil kick. For instance, you know how even an ordinary cannon hurls itself backward after each shot? Yet an ordinary gun is just a peashooter compared to atomic force blast. The recoil is correspondingly higher. Therefore, by firing atomic force blasts instead of ordinary rocket explosive I believe I can drive a vessel across space with tremendous speed, great safety, and surprisingly low fuel consumption. A cube of steel three inches square will be quite sufficient to drive a good sized vessel to Pluto and back again. Remember that once the actual gravitational fields of the planets are overcome it is all plain coasting. Between planets one can achieve perpetual motion: ether of course offers no resistance—or if there is any it is quite immeasurable."

"And you are really sure you can manage it?"

"Quite sure. Reports from independent engineers prove the idea to be sound. The only thing I have not divulged is the method of obtaining atomic force—nor do I intend to. There are too many power-lusting fools in the world to turn that secret loose. The fact remains, I can do it by a system of gradually built up pressures and heat inside a small matrix. . . . What I shall need, Mr. Doone, is a Government grant of unlimited finance to construct one hundred large sized space machines immediately. I'm leaving it to you and Marden to conscript factories for the purpose. I'll supply the plans and nominate the engineers."

"With matters so urgent there won't be any opposition," Doone replied quickly.

"If there is, crush it," the girl said, her lips tightening for a moment. "We can't afford to have slip ups at this time. I underestimated the ravages created by stopped cosmic rays. And now to these other observations."

SHE picked up a wad of notes fastened with a wire clip.

"Does it surprise you to know," she asked slowly, "that the best possible planet for migration is Saturn?"

"Saturn!" Doone echoed, staring. "I'll say it surprises me! The vast distance for one thing—it's uncertain surface for another. I should have thought Venus—"

The blonde head shook firmly. "No, not Venus. It has both internal warmth and great nearness to the sun. The

heat would overcome earth beings with great rapidity. Besides, according to the new 400-inch reflector at Mount Wilson it's surface is probably 75 per cent liquid mud, with hot oceans. Utterly useless—But in Saturn, strange to say, we have a unique planet. For one thing its huge size will make for plenty of room: for another, exhaustive tests reveal that some 50 per cent of its surface is passably solid, and 50 per cent of a planet 75,000 miles in diameter is a good deal. Other details are that the atmosphere, originally believed to contain hydrogen and nitrogen only also contains a considerable amount of oxygen, enough for earth beings anyway. Sunlight, though only one hundredth of Earth's, is still sufficiently strong enough to produce a fair degree of light, together with very necessary ultra violet radiation. The day lasts about ten hours, roughly half an earthly one, and the night will be well illumined by the rings and ten moons. Even gravity will be no handicap because Saturn's density is two-thirds that of water and surface gravitation is therefore about one-fifth greater than earth's. Any human being, any object, will therefore only gain one pound in five. . . . Again, unlike Jupiter, Saturn is warm. His distance from the sun is counterbalanced by considerable internal heat which should give a general average of around 60 to 80 degrees Fahrenheit. . . ."

"I see," Doone said thoughtfully. "I don't pretend to know how you can be so certain, but if the reports all check I suppose it's O.K."

"Quite," the girl said decisively. "The only difficulty as I see it will be in navigating through the asteroidial belt and Saturn's rings. However, I think that can be mathematically worked out ahead for the pilots to understand."

"Suppose," Doone mused, "nobody agrees to the idea of being hurled to another world? What then?"

"I rather think that plenty will agree. You cannot order them to go, of course. Call for volunteers. There are quite enough venturesome spirits in every walk of life to answer the call. It doesn't worry me."

"Well, we can but try. Now, if I put the factory conscription order into force immediately how long will it take you to produce the hundred machines?"

JANICE considered for a moment, finally answered, "Working night and day in relief shifts the first batch of twenty-five machines can be produced in a month. I'll see to that. Each ship will hold about thirty people, including crew. A first class scientist will go with each vessel so that all details as regards landing and so forth can be attended to. Engineers will be given plans for the erection of temporary cities until proper cities can be erected. Later, of course, when the migration is over, you will go and take control, put your ideas into effect."

Doone nodded slowly. "And you?"

"I shall be one of the last. I shall have to remain to the end to supervise the ships."

They both became silent for a moment, regarding each other. Then Doone spoke again, quietly.

"You're a most amazing woman, Miss Milford. You know, with my control of men and your bewildering scientific knowledge we could—"

"You'll arrange everything, then?" she broke in, almost curtly. "I'll keep you in touch with my part of the business."

The plain dismissal made Doone smile wryly. Quietly he shook hands, went out with the vision of that perfect face and its blue eyes hovering before him.

CHAPTER V

Suspicion

THE general conscription order of men and materials was by no means welcomed—but it had to be obeyed. Fortunately, the obvious evidences of distress stalking the world forced most men and women to the realization that Doone and Marden were doing what they considered was the best for them.

By radio they were gradually informed as to what was intended: people were given a free choice as to whether they chose to start a new life on another world or stay behind and die, paradoxically enough, because of life. Scientists then added to the propaganda by their own descriptions of Saturn's possibilities.

The idea caught the public fancy. Several times the girl herself spoke over the radio, was televized to the remote corners of the world. Other countries, desperately pushed for some means to relieve the rapidly growing population and perpetual increase of all living things, begged for her services, which she freely gave. She deputized international scientific experts to carry out her instructions, telling them every needful detail except certain vital secrets which she still kept to herself.

In the weeks of flurry and bustle during which mankind turned to the task of space ship building—for the inclusion of other countries entirely altered the girl's original 100 machines plan—it became gradually obvious that nobody seemed of such importance in the world as Janice Milford. Already a great scientist, she became elevated to almost demigodic proportions as a great savior in time of distress. The people were willing to obey her every suggestion. Her quiet charm of manner, her beauty, the intangible air of mystery that hung around her, swayed the minds of both men and women.

THE whole world listened to her address a month later when, right on time, the first twenty-five space machines were ready to depart from New York into the void. She gave a speech on the possibilities of Saturn, reaffirmed her faith in the engineers who had been trained to control the vessels in their flight. Though Marden and Doone were beside her on the speaker's platform at the departure grounds they seemed to have little significance in the proceedings. They sat on either side of her, backed by famous public officials, and watched her speaking into the microphone, faced by thousands of interested people and the already sealed space machines containing the first batch of 750 volunteers.

Doone's gaze toward the girl's slim back was one of complete admiration as she went on talking—but not so Marden's. His brows were down, his cold gray eyes narrowed with impatience. This complete usurping of his authority, over the United States at least, anything but pleased him. Never in his whole life had he believed that a woman should take prior place over a man; it enraged his naturally arrogant spirit. Obviously he could take no action now, so he sat and glowered, drummed impatiently on his chair arms.

At last the girl finished, raised her arm over her head in a signal. A blasting roar boomed from the assembled twenty-five ovoids with their glittering windows. One by one they rose with the smooth ease of a bird, swept with effortless acceleration toward the clouded morning sky. One by one, guided by the perfectly trained pilots.

They were lost in the clouds. The last machine vanished from sight amidst the echoing shouts of the peo-

ple—Seven hundred and fifty men and women, first pioneers of the earth, had gone out into the unknown. A solemn little hush fell on the crowd. The thing was over. There was a general movement toward departure.

Janice turned, smiled at the men on the platform, then with a little nod of farewell she descended to the grass and headed toward her waiting car, accompanied by the cheers of the milling throngs. Marden's eyes followed her suspiciously, until at last he saw her car begin to move away through the press.

"I DON'T like it!" he growled. "That woman is doing just what the devil she likes! I sometimes think we should have investigated her past history more closely before putting everything so completely in her hands."

"What on earth for?" Doone demanded, staring in amazement. "Hasn't she provided the only possible way out of our difficulties?"

"I suppose so. . . ." Marden made the admission grudgingly. Turning suddenly he faced Doone squarely. "Frankly, Doone, I'm beginning to distrust her!" he snapped. "She's definitely a scientific freak, and I don't like the way she's lifted power right out of our hands and captured the public imagination. Has it ever occurred to you how magically she derived an atomic force system of space driving from Brandon Hurst's anything but lucid plans? I know far more of engineering than you, Doone, and I can't even begin to fathom how the devil she did it! And successfully too!" He stared up at the cloudy, empty sky.

Doone gestured impatiently. "Distrust her all you like, Marden, but I admire her intensely. I'm prepared to do all she says—anytime and anywhere. I can understand the people feeling likewise. Dammit, man, haven't you got any responsive feelings at all inside that armor of yours?"

"In love with her?" Marden's rugged face was cynical.

"Supposing I am? What difference does it make?"

"Plenty! It might blind you to her real motives. I've more than a hunch that there's something unnatural behind all this. The deathlessness, her extraordinary ingenuity in finding a way out of the difficulty, her choice of Saturn above all other planets and her ability to persuade other astronomers that her ideas were right."

"Observations checked exactly!" Doone retorted hotly.

"I know. She worked very logically, convinced them of everything. They stated facts and she built up on them. . . . *But why Saturn?*"

"Because it's the best planet! Don't start making a fool of yourself, Marden!"

Marden smiled rather twistedly. "I'm going to make it my business from now on to find out all I can about this young lady," he stated calmly. "If she's all she claims to be, all right. But if she isn't. . . ."

He turned away, his lips compressed, descended from the platform. Doone stared angrily after him. Not for a single instant would he have openly admitted he felt the same way. Janice Milford *was* extraordinary, and none but a fool could deny it. If indeed she did have an ulterior motive in all this, it was well hidden. So far she had apparently acted only for the good of all concerned.

FOLLOWING the departure of the first twenty-five space ships there was an exodus of machines every week, not only from America but from other countries, all of them taking the long

trail into infinity. Before very long the first space machines would return for a second load, together with the first full story of conditions in space and on the ringed planet.

In the interval, in a determined endeavor to make things more habitable on earth, international agreements were drawn up for concerted bombing raids on vegetation infested areas, the destruction of enormous carpets of choking weed smothering the bosoms of the seas. United mankind started on a war against Nature, knowing that upon his activities rested the only hope of maintaining Earth as a habitable planet. Unless the cosmic rays returned. . . .

Weeks passed—weeks of incessant work on the part of every man and woman, with occasional encouraging radio talks by Janice Milford. The ships would soon return, she said; and finally the time limit had elapsed for the round trip. Mankind waited eagerly for the first sign of the returning vessels. Every telescope was at the ready. The girl herself even predicted the approximate hour at which they would appear. But they failed to arrive!

Anxious hours passed into days and no space machines put in an appearance. For the first time production on further space vessels was halted. Something had gone wrong somewhere. If space too only offered death—as was beginning to seem probable—there was no sense in making an effort to die. Inevitably that would happen on Earth in the long run. Death because of the cramping spread of perpetual life.

FREDERICK MARDEN was coldly malignant about the new situation. In the past weeks he had kept to his promise and had had the girl's entire life and history investigated—nor did the results cheer Doone very much when he heard them.

"I tell you, Doone, this girl is playing a dangerous game, with human lives as pawns," Marden breathed, pacing the huge office. "Janice Milford, eh? Would it interest you to know, my lovelorn friend, that nowhere in all the birth records of the United States is there a record of her birth? Much less so in West Virginia, where she claims she was born. There *are* many Janice Milfords, of course—but none that apply to her. Nor is there a record of family tree or possible ancestors.

"In fact, from every investigation I've made she only made herself really apparent about three years ago—two years or so before the civil war began. From that point onward there are records of her having bought great quantities of scientific machinery from various firms, and of the gradual build up of Milford Industries Incorporated. That, I presume, is the normal business which she controls."

Doone swung moodily to and fro in the swing chair. "I can't understand it," he muttered, brooding.

"No?" Marden came to a stop, rested with his knuckles on the desk and stared at Doone deliberately. "Well, I do!" he said bitterly. "Some five thousand people of different countries have been fired into space—and God alone knows where they've gone or what's happened to them! Think, man, of the incredible way in which everything coincided! First the world went deathless and provided a perfectly sane reason for sending people from earth. Mysteriously enough, this girl had just the right ideas! She tells a cock and bull story about the first space machines returning—but they don't! What's the answer to that one?"

"Summon her here and find out."

"I've already spoken to her over the visiphone but she seems entirely unmoved by the occurrence. All she's done

is to put a stop order on space machines until the first ones come back. If they don't come back I suppose we're expected to calmly accept the whole thing as a failure! But not with me, Doone! I've got the people's interests at heart and this woman isn't going to get away with it! It's—it's mass murder! Deliberately she has hurled five thousand men, women and children into space in those insane space machines of hers—just the same as Brandon Hurst threw himself, his wife and daughter away!"

"But maybe it really *is* misfortune!" Doone insisted quickly.

"Misfortune!" Marden smiled sourly. "That cuts no ice with me, Doone. Women like Janice Milford don't make mistakes—or if they do they're *deliberate!* I'm not saying yet that she's deliberately killed five thousand people—but I do say she got rid of them for a reason . . ." He broke off, took a deep breath. "I believe," he said slowly, "that Janice Milford doesn't belong to this earth at all! I believe she's a denizen of another world—and more likely than not that world is Saturn!"

"Bunk!" Doone snorted.

"No it isn't. She has vast knowledge: she could easily make herself look like an Earth woman if she had a plan to work out. Saturn, for some reason, required five thousand Earth people and it was up to her to get them. She did—very effectually. That's my guess."

"And a damned rotten one!" Doone snapped, glaring. "I suppose she caused the deathlessness? Stopped the cosmic rays?"

"Possibly. A brilliant scientist could even do that."

DOONE stared incredulously, got to his feet. "But good Heavens, man, you can't be *serious?*" he cried. "You just can't be! Why, it would be even more logical to say that—that she's Brandon Hurst's daughter than a Saturnian!"

"I had considered that," Marden nodded calmly. "Here—take a look at these pictures of Eva and Mrs. Hurst from the photographic Bureau . . . that isn't the answer."

Doone picked up the prints from the papers on the desk. They were in natural color, depicted a robust woman of middle age, the tall, handsome Brandon Hurst himself, and then a young girl of perhaps twenty, dark haired and brown eyed, round faced, inclined to be stoutish—as utterly unlike the slender, beautiful Janice Milford as it was possible to imagine.

Doone tossed the photographs impatiently away, his mind running back over all the recollections of the girl he had ever had. Most of them were pleasant. Despite the shadow cast over her possible identity he still believed in her — Then suddenly, unexpectedly, he remembered something. It had been trying to struggle to fruition in his mind for weeks—the memory of a statement she had once made, afterward changing the subject so suddenly she had obviously been aware she had made a mistake.

"Good—Lord!" he ejaculated abruptly.

"What is it?" Marden's gray eyes were keen.

Doone stared at him wonderingly. "I—I just thought of something," he whispered. "Recently, Janice demonstrated to me that although she looks normal—where everybody else is obviously coarsened—she is actually as tough as the rest of us. I remarked on that fact and her answer was 'So Abel Dodd found out when he had me tortured . . .' But, when she was tortured the deathless anabolism had *not arrived!* She saw the mistake immediately after, and I was left trying to figure

out what she'd said that wasn't right."

"SO!" Marden breathed exultantly. "That implies she was as impervious to injury before the anaholism as after it—and the fact got out by accident. No wonder she was so stoic under torture and gave nothing away. Though the torturers managed to tear her skin and burn off her nails, she probably hardly felt it. It's the only possible explanation—normal flesh and blood could never have stood that—and a girl too—without some hint of breaking down. She's inhuman—unnatural!"

Doone looked harassed, rubbed his dark hair anxiously. "I—I still can't believe it, Marden. I—"

"There's one certain way of proving all this, I think," Marden said slowly, thinking. "If we assume that she is a masquerader from another world, it is distinctly unlikely that every one of her bones will be in the identical place of a normal earth woman, isn't it?"

"I should say most unlikely. Different worlds must have different life. Why?"

"We'll ask her to submit to an X-ray examination!" Marden cried triumphantly. "If she is a normal woman she'll raise no objection, but if she is a Saturanian with a cleverly modeled earthly structure she'll know the X-ray will give her away and she'll refuse!"

Doone's face cleared. "O. K.—that's a swell idea. I've not the least doubt she'll agree to—"

He broke off and turned as the main radio speaker suddenly came into action.

"World report! Cosmic rays are reported to be prevalent again in Europe! Flash! Cosmic rays reported returned to various parts of America. . . . Astronomers and scientists, please verify!"

The two men stared at each other for a moment.

"They've returned!" Doone breathed at least, his eyes shining. "Good Heavens, Marden—that means the earth is saved! Normalcy will come back and—"

The door opened suddenly and a clerk entered.

"Miss Janice Milford," he announced dispassionately.

MARDEN'S eyes narrowed again. "Show her in," he ordered briefly, and stood with his hands clasped behind him regarding the girl as she quietly entered.

She gave Marden a puzzled glance, smiled at Doone as he held forth a chair for her.

"Probably you've heard the news," she said presently. "The cosmic waves have returned almost simultaneously to all parts of the earth? I rather hoped I'd bring the good news first, but I hear the radio forestalled me. Not that it matters. The fact remains that at 10:12 this morning deathlessness passed from Earth and things will go back to normal. I thought a few personal observations might help, so I hurried along here."

"Very interesting, I'm sure." Marden took a chair opposite her and surveyed her coldly. "I suppose, then, that the five thousand or so people sent into space need never really have gone?" he asked icily.

"We could not have foreseen this." Her own blue eyes were perfectly frank and steady as she stared back at him.

Marden drummed his fingers on the desk. "So normalcy now returns?" he murmured. "Very, very convenient, I'm sure! Almost as convenient as the cosmic ray blockade in the first instance! You sent five thousand people into space for a reason, Miss Milford—and we demand to know why! Where are the space ships that were to return?"

"Either they met with some accident, or have been delayed."

"Damnably unconvincing, Miss Milford! Where did those five thousand people go to? *Why* did you send them into space? I do not believe for a single instant that your reason was genuine, though it sounded logical enough at the time. What was your real motive?"

The girl got suddenly to her feet, clearly offended.

"I did what was my duty in a world wide emergency!" she retorted. "You can place your own construction on that!"

"And by Heaven I do!" Marden roared, leaping up and gripping her arm. "You're nothing better than an imposter—a scientific genius w h o by clever trickery took five thousand innocent souls from Earth into space, probably to Saturn, for some ghastly reason best known to yourself!"

JANICE snatched her arm free, stared angrily.

"Whatever put that insane notion in your head, Marden?"

"Insane, is it? I'll go further and say that you are really a Saturnian creature made to resemble an earthly woman."

"Such ingenuity!" the girl observed icily.

"All right then, are you willing to prove your earthly origin?"

"Certainly I am. How?"

Marden smiled triumphantly. "If you are constructed exactly identical to a woman of earth, I'll believe you belong to this planet and will try and find the motive for your actions in some other way—but if you're not normally constructed your unearthly origin will be taken as a certainty and I can't answer for what may happen to you!"

"We want you to stand for a complete X-ray," Doone told her quietly. "You won't mind, of course? Medical experts will soon know what the plates reveal—"

"X-ray!" the girl gasped; then suddenly she swung round on Marden savagely. "Say, what do you think I am?" she demanded furiously, her eyes blazing. "Do you think I'm a specimen to be examined at will? You're both mad! Crazy! I won't submit to an X-ray or anything else like it! Think what you like, but I won't do it!"

Doone's expression changed. Marden grinned maliciously.

"After all, it's only to prove—" Doone began, but Marden cut him short.

"Save your breath, Doone—it's already proven! Miss Milford, your very refusal to such a simple test is proof of your guilt. The Hall of Justices will have plenty to say about this, and—"

"WAIT a minute!" Doone suddenly sprang in front of the girl, held Marden back with a powerful arm as he strode forward. "Wait a minute, Marden! I still believe you've gotten this all wrong. Janice—I mean, Miss Milford—acted from the best principles, and nothing will convince me otherwise. Not even X-rays!"

The girl shot him a grateful glance and Marden scowled.

"Don't be such a damned fool, Doone. This is no time for heroics! Hand that girl over!"

"When she's good and ready, not before!" Doone snapped, his jaw squaring. "The least you can do is to give her a chance to clear things up without jumping to conclusions. I'm going to see that she gets that chance. If you publish your crazy Saturnian idea to the people they'll tear her limb from limb. Five thousand people sent to doom by a Saturnian woman in disguise —! Think how it will sound! People

will have no mercy! They never have."

"Why should they have when it's true?" Marden demanded. "I'm going through with this, Doone, and you can't—"

He broke off as Doone suddenly whirled round and picked the surprised girl up in his arms. In an instant he had flung the door open and raced out with her into the corridor.

"Quickly—your place!" he panted, dropping her to her feet. "I know Marden; he'll stop at nothing! Let's go—we can talk later."

She nodded quickly, raced down the broad stairway as fast as she could go, with Doone immediately behind her. The instant the automobile door slammed the vehicle pulled away, moved swiftly into the swirl of traffic.

Two minutes later, breathless and scowling, Marden arrived on the steps of the Presidential building. At last he turned back, lips set in a thin line of decision.

CHAPTER VI.

Besieged

ONCE the girl's home was gained, she and Doone went immediately to the laboratory. The girl gave a brief dismissal to her surprised staff, then pressed a series of switches which closed the metal shutters over the windows. Lights came up in the resultant darkness. Yet another series of switches slammed home bolts across the main door leading to the exterior.

"It almost looks as though you had anticipated trouble," Doone remarked at length, turning. "Am I right?"

"Not entirely—but I believe in being prepared." The girl regarded him with frank eyes. "You did a very wonderful thing this morning, Graham. . . . Don't mind me using your first name will you? You used mine this morning. Without knowing the real circumstances you had faith enough in me to protect me from Marden."

"I've always had faith in you, Janice," he answered quietly. "Even more than that. Several times I've tried to show you that I love you—"

"I know; and if I've seemed indifferent about it it has been because I can't let anything interfere with my work."

She turned aside for a moment and switched on the radio, smiled twistedly at the outpourings from the speaker.

". . . and I tell you, people of America and the world, that this woman is a traitor! Another world visitor using her knowledge to our detriment! We do not know how she stopped cosmic rays or caused them to resume. We do not even know her purpose: but we do know that she fired five thousand innocent people into space for no good reason. I call on you to seize this she-devil before—"

She switched off again, her eyes somber. Then she looked up and glanced round the laboratory.

"Well, they'll have a pretty hard job getting in here!" she commented. "It's explosive proof . . ." She glanced at Doone as he stood quietly before her. "Do *you* think I killed five thousand people?" she asked slowly.

"I wouldn't have stood by you if I'd thought that. But I do think it's time for you to tell the truth. I've shown my trust; now you show yours by giving me the real story. You realize what Marden is doing? He's fanning the public to a frenzy against you. You will be attacked, and though I love you enough to die for you if need be, it won't avail me much if I've never known the real reason. What *is* the reason?"

THE girl shrugged. "Well, even if I told you the truth I hardly think

you'd credit it. Everything is so utterly against me—there is such a lack of evidence until I get support from my father—that I dare not tell the real truth. That's why I've hidden it! If only those space ships would return I'd be vindicated. I can only assume I underestimated the time for the journey. Until they do come I've got to hold out against those who want my blood."

"Your father?" Doone's brows knitted. "Who is he?"

"Brandon Hurst." Janice made the statement quietly, with a faintly amused smile.

Doone eyed her coldly. "I thought you promised to tell the truth," he remarked disappointedly.

"That *is* the truth! You see how quickly you disbelieve me—and you're one who trusts me. How would those others react? You've seen my photographs as I used to be, I suppose? Well, who would think Eva Hurst and Janice Milford are one and the same?"

"It's impossible!" Doone gasped. "How on earth—"

"I *am* Eva Hurst!" the girl reaffirmed. "Janice Milford is an assumed name, and therefore there are no records of my birth or ancestors. When we three set out into space four years ago, father intended heading for the moon. But something went wrong. For one thing, the awful pace at which we shot into the void made us unconscious for days on end. When we recovered the ship had stopped accelerating and had reached a steady velocity. But we were nowhere near the moon. Gravitational cross currents had pulled us away from our objective and we were heading out towards the asteroids. We could either return to the moon, or take advantage of our far flung position and go outward.

"Father set about making tests of the planets, and being so much nearer to them than on earth, and unhampered by any atmosphere, he made a perfect analysis of each surface. Of the four outer worlds—or rather five if you include useless Pluto — Saturn appeared to be the best. After some difficulty with the rings, we landed . . ."

Janice—Eva—paused and frowned. "Our landing was violent," she muttered. "One of the forward blast tubes had cracked on coming through the Rings and we were without its very necessary braking assistance. I remember nothing of the landing except a terrific pains as I was flung among the instruments.

"The next thing I knew I was recovering consciousness amidst the smell of sweetish ointments, antiseptics, and so forth. I could hear deep, strange voices. I was utterly unable to move. Bandages covered every conceivable part of my body.

"As time passed I learned what had happened. The fall to Saturn had scrambled me up entirely. My limbs were broken, my skull crushed, my eyes torn out with splinters of glass. No earthly surgery could possibly have saved me . . ."

"Then?" Doone whispered, listening with wrapt attention.

"SATURN is inhabited," she said quietly. "Vast areas of its surface—about fifty percent—are populated. There are cities there, tenanted by a brilliant and kindly people—rather repulsive to look at but remarkably kind and gentle. It was these people who found the fallen space machine. My poor mother was killed outright, but father only suffered slight concussion. To all intents and purposes I was practically dead when the Saturnian surgeons took me to their laboratory.

"What they did, or how they did it, I shall never know. I only remember

weeks of lingering pain, of utter darkness, of hovering between life and death —then I began to mend. When at last I was able to see again I realized what they'd done. They had entirely remodeled me! Grafted new skin, given me artificial blue eyes like their own color, even set new hair roots of blonde color like their own. They bad changed me from a rather ordinary looking, plump brunette into a blonde with vivid blue eyes. I personally liked the change enormously, but poor father couldn't at all get used to it. Much that tbey did was, in truth, only an advanced form of the work a plastic surgeon can do on earth today.

"One thing they bad done, however, and that was to replace several of my shattered organs with new metal ones of a golden color. My heart, for instance, is metal. That was wby I refused Marden's demand for an X-ray. Tbe defects in structure would bave shown clearly on the plates and be'd bave jumped to the wrong conclusion."

"So that was it!" Doone murmured, nodding. "I'm beginning to see light at last. What happened next?"

"I found other things connected with that surgical operation. The Saturnians had given me eternal life and invulnerability—from all ordinary forms of injury that is—under the belief that I would desire it.

"The flesh process had made me invulnerable to all ordinary injury, therefore when Abel Dodd had my nails burned off and the flesh slowly torn with pliers from under my armpits I hardly felt it. That condition still remains. I made the mistake of revealing my eternity to you, you may remember?"

DOONE nodded, remained silent as she went on.

"In time we learned the language. Father could not be grateful enough to the scientists for saving my life. He offered anything he could in return. Then we learned that in making themselves eternal the Saturnians had altered the course of Nature. Eternal life, once it gets beyond a limit of about two hundred earthly years, destroys the power of reproduction. Saturnian men and women cannot reproduce their kind, nor can they create life synthetically. When they realized the tragedy that had befallen them they searched desperately for—and found—an antidote. They mated again, but it was useless. Their hundreds of years of eternity had changed them utterly. There would never be a birth again. What was even worse, the finding of the antidote had produced disease. Impregnable body structure, after so long a time, began to deteriorate rapidly. In another fifty years, perhaps, not a Saturnian will be left.

"So father and the Saturnians decided on a plan. Earth being the only populated planet in the system beside Saturn, there was no reason why Earthlings should not have the secrets of Saturnian science, together with its cities, as an interplanetary gift. The Saturnians were quite satisfied as to the desirability of the idea after seeing dad and I. Ultimately they would perhaps have taken Earth people by force and given them the legacy, only that would have meant hostility and by no means welcome to their peaceful ideas."

"So you came to Earth and put the plans in action?" Doone asked.

"Finally I did, yes, without anybody being aware of it—but first other matters had to be arranged. Father was needed on Saturn to arrange for the Earthlings when they came, and on Earth nobody would credit my identity. I'd have to use an alias. Then again, there had to be a *reason* for taking sev-

eral thousand people—who would multiply as time passed of course—from Earth to another world. To tell them the true story of Saturn would only have brought ridicule. The only alternative was to force them into it without them being aware of the persuasion. That was done by causing overcrowding which made a logical reason for being rid of thousands of people—all of them volunteers, remember. . . ."

"Then your scientific friends on Saturn were responsible for the cosmic ray stoppage?"

"Of course. They did it by complicated scientific processes of which I can only give the briefest outline. Where cosmic waves originate not even the Saturnians know, though they believe like us that they are possibly caused by the breakdown of matter in far distant parts of space. That is not of great concern: what really matters is that the greater proportion of cosmic waves cannot reach earth's surface because of the ionization of the atmosphere's upper levels. The greater the ionization the less waves can get through. That is well known. . . ."

Doone nodded slowly.

"Since ionization is simply the separation of positive and negative atoms composing the molecules of atmospheric gases and producing thereby negative and positive ions, and since also ionization on a large scale can be produced electrically, it only remained for the Saturnian scientists to generate an electrical effect of the appropriate intensity to cause a far higher ionization of the stratosphere than is normal. This they did, using an electromagnetic beam of the required intensity.

"It crossed space at the speed of light, timed exactly to strike and remain fixed on earth. Naturally the beam widened out as it traveled, until by the time it arrived here it was easily able to encompass the approximate 8,000 miles of Earth's diameter. The electromagnetism spread instantly through the entire upper level of the atmospheric envelope and deflected cosmic rays as completely as a mirror deflects light. No cosmic rays reached Earth, and as the scientists had calculated the stoppage created cellular changes and deathlessness, none of which affected me because I was already in that condition.

"KEEPING to their plan, the Saturnians waited until several thousands of Earth people had reached Saturn, then they cut off the blockade —this morning, as a matter of fact. Nobody has been harmed and my object has been accomplished.

"Of course my knowledge was handed to me by the scientists, and I used atomic force for space ships because it is definitely superior to father's' original method. In many ways the cosmic blockade did good—it stopped the civil war for one thing, which at one period threatened to ruin my plans. The rest you know."

"Why didn't you leave the moment your work was done?" Doone asked.

"For various reasons. I honestly expected the ships to be back before this. Once they come everything will be explained and proper Saturn-Earth negotiations can begin. As it is I'm left hanging in the air, so to speak. I've no proof. I've got to wait or . . . die."

The girl sighed a little. Doone took her arm tightly.

"It'll work out all right," he murmured. "Tell me something, will you? Are you forced to be eternal? Do you like it?"

She shook her head. "Not really. If I ever clear up the mess I'll use the antidote and come back to normal. It has had advantages up to now, particu-

larly under torture. But I'd sooner be a normal woman anytime. Besides—"

She broke off and looked up sharply at the sound of distant voices, rising gradually into a swelling murmur that grew with the moments. The girl's face tensed and her rounded chin set firmly. Doone gave her a quick glance as she turned to the nearest window and pressed the shutter switch. In grim silence they looked out together at a mob of people surging into the grounds around the laboratory. They seemed to be coming from every direction, armed with rifles and varied types of implements.

Doone's face set like granite.

"Give me a gun!" he snapped. "I'll hold them off somehow while you get away. You might be able to manage it —keep in hiding until something happens to clear things up."

Eva sighed. "I haven't a gun," she muttered. "And anyway I don't think it would do any good to escape. Besides, I don't want anybody to be hurt if it can possibly be avoided. Everything has gone all right up to now. . . ."

She pressed the button and the shutter reclosed. They both stood in silence, listening to the whang of bullets against the shutters, the thundering of fists and implements on the door, the bawling of voices.

AFTER a moment or two Doone cautiously opened the shutter again and studied the proceedings. Men and women were around the laboratory door, working industriously with an oxyacetylene torch. He glanced at the interior side of the door; so far there was no sign of collapse. The metal was tremendously strong, far in excess of steel itself. He wondered anxiously why there were no police on the scene to quell the riot, then remembering Marden, the co-President, was back of it all his wonder ceased. Obviously the police had received orders not to interfere.

He made to turn from the window, only to start suddenly as the glass splintered under the impact of a long pole stabbed from outside. Instantly he depressed the shutter button, but the shield could not close against the pole. It was being wielded as fiercely as a lever: it slammed the shutter back in its slots, broke the mechanism, and Doone sprang backwards to avoid the shower of glass that came cascading inward.

Instantly he crossed to the girl and threw an arm protectingly around her shoulders, clenched his right fist for action.

In a moment two vengeful men's faces appeared in the opening. One of them shouted back to the crowd outside —then they began to scramble through, kicking the remaining glass away with their boots. Doone watched them through narrowed eyes as they dropped to the floor and commenced to advance.

One after another men and women scrambled through the gap, faces set and resolute. One or two of them snapped over the door lock switch and permitted a fresh flood of humanity to vomit inwards. Doone, watching them, realized immediately that they represented the lower classes of humanity—those who believed what they were told and who never troubled to reason for themselves. To them Marden's bitter radio indictment of the girl had made the most direct appeal.

THE foremost man halted at last, breathing hard, motioned to the others to stop.

"President Doone, eh?" he demanded, sneering. "Shielding this creature from another world? The one who

told everybody what to do, was planning to fire us all into space if she had her way."

"You've got this all wrong!" Doone snapped. "She's an Earth woman, you fools! Not one of those people who went into space is hurt—".

"Yeah? Then why don't the ships come back and prove it?"

"They will—in time," Doone said desperately. "You've—"

"If this woman isn't a creature from another world dressed up like a dame, who in hell is she? Why didn't she submit to Marden's X-ray? What's her game?"

"She's—she's Eva Hurst . . ." Doone made the statement helplessly, and as he had expected there was a yell of derision.

"Lies only make it worse!" the man snapped. "Marden gave us the truth over the radio, and you're about as bad as this woman is. She's a mass murderer, and we intend to show her how foreigners from other planets get treated, 'specially when they take our friends and kill them. We're taking the law into our own hands, and nobody's going to stop us! Grab her, boys!"

"No—no, wait!" Doone gasped frantically, but he was hurled backward with a blow on the jaw before he could rush to the struggling girl's assistance.

He saw her lifted into the air, kicking and threshing wildly—then he too was seized and borne along a few yards behind her. Punched and pounded by the infuriated mob they were dragged out into the grounds, round the laboratory, and finally to the massive oak trees bordering the grounds. There they were set down, their wrists fastened securely behind them.

"Well, what now?" Doone demanded, glaring.

"You'll find out . . ." The leader of the party smiled twistedly. "I guess a length of rope round your necks will put you both well on the way to eternity, especially as nobody's deathless anymore. This may be rough justice, but it's the justice of ordinary people who know nothing about science or space traveling. All we know is that among our sons and daughters and friends were several volunteers who went into space —and we mean to exact revenge for their deaths. You too, Doone—you're as bad as this she devil."

"Aw, quit talkin', Jeff, and get busy!" yelled somebody.

"Hangin's too good for 'em!" one man bawled, waving a clenched fist. "Hang Doone if you like, but give the dame a slow death! Let her go through what the others did, out in space—"

"She wants lynching, that's what!"

"Hang her by the heels!" yelled a sour faced woman.

Doone made a desperate, futile effort to free himself.

"Listen, folks—you've got to listen!" he cried hoarsely. "If you do this thing you'll never forgive yourselves! Marden's the one to blame for all this—"

"Let's get started!" the leader interrupted briefly, took two stout ropes from one of the men and tossed them over the tree branch. Significantly he noosed the ends.

THE crowd surged forward to assist him as the nooses slid over two necks. Doone and Eva kicked and struggled madly as their limbs were tightly bound. At last the crowd stood back to admire its handiwork, then moved to seize the rope slacks and pull upon them—

But they never got that far. At that moment the sour faced woman suddenly gave a shout.

"Wait! Look up there—!"

The people turned, hesitated, stared

aloft in amazement at an egg shaped, silvery vessel dropping slowly from the clouds in the direction of central New York.

The people scattered wildly out of the track of the vessel's scorching underblasts as it began to settle down near the laboratory. Again it shifted, came to rest gently not ten yards away.

There was a moment's pause then the airlock opened. A tall gray headed, handsome man came slowly into view —and immediately the crowd gave a tremendous roar.

"It's Brandon Hurst!"

"The guy who went to the moon!"

"Father!" the girl screamed, and her voice cut over the roar of the crowd. "Father! Quick!"

Hurst looked across in her direction, made a quick signal inside the ship. In a moment, followed by seven other men armed with deadly looking weapons he had passed through the crowd to the girl's side, savagely flung off the noose from her neck, drew her into his arms as she began to weep unrestrainedly.

"Oh, Dad, thank God you came—"

Eva broke off, gulped down her tears.

"Lucky I did, I guess," Hurst said grimly, glancing at Doone as he too was released. Then he turned back to the astounded, still half suspicious people.

"HAVE you idiots gone insane?" he demanded angrily. "Don't you realize that this girl is my daughter? No, I guess not," he went on quietly. "I'd forgotten the changed appearance. Anyway, you can take it from me that all those people who left earth are not only well and safe, but happier than they've ever been in their lives before! These men here with me are some of the volunteers who made the journey. Do they look too bad?"

The people were silenced, waited for Hurst to continue.

"The delay in coming back to Earth was caused by various difficulties coming through the asteroid belt," he went on quietly. "It knocked days onto our schedule. I came as well because I had the idea my daughter might be in difficulties if things were not cleared up. Besides, there are matters of interplanetary negotiation which only I can handle . . ." He broke off and turned to Doone. "Where's the President?" he asked briefly.

Doone smiled faintly, told him the whole story of Marden's disbelief. At the end of it Hurst turned back to the people.

"Well, now you've heard the truth," he remarked quietly. "You've seen how near you came to hanging a girl who has all but given her life in the service of space pioneering. Lucky it was that I saw this disturbance from the ship and came to investigate. What are you going to do about it?"

The crowd was silent for a moment, then the sour faced woman shouted:

"Where's Marden?"

"Find Marden!"

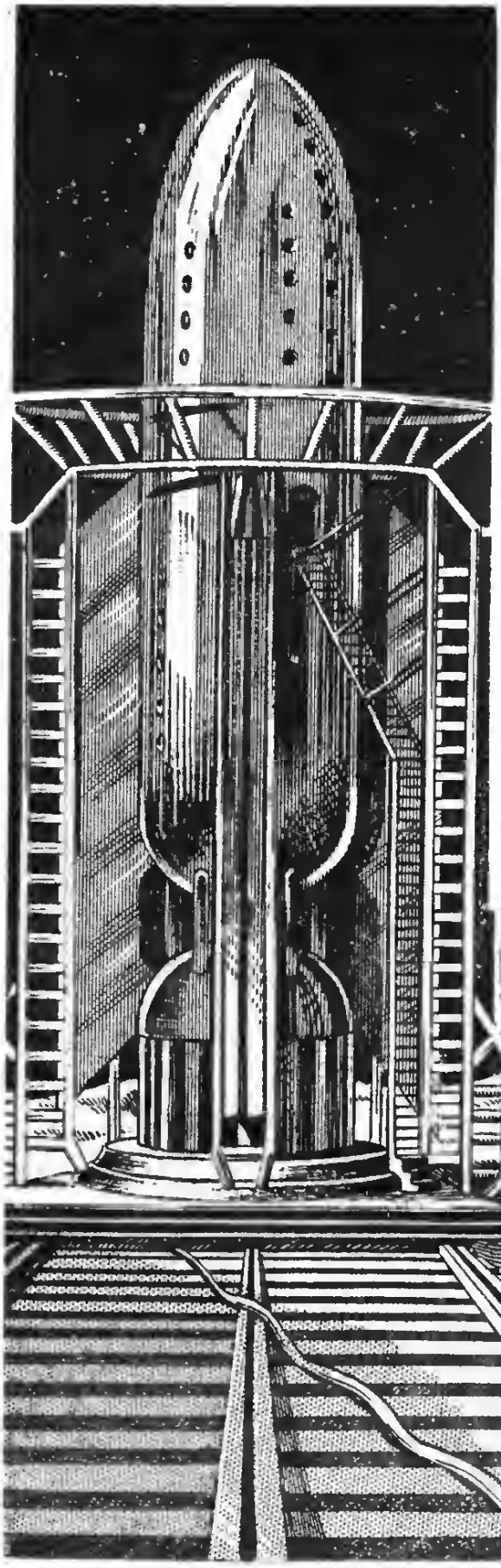
"He's the man we want—!"

They turned, surged away. Hurst looked after them with somber eyes.

"I rather fancy there is little doubt whom the next President will be when the full story is published," he remarked. "A President of America and first ruler of the new Saturnian colony. Also, Doone, when the final details are complete you must come to Saturn and assure yourself of the enormous possibilities that await us there."

"I'm assured of it already." Doone smiled, glancing at the girl.

He was right too. They made the trip their honeymoon, and when they returned to Earth to complete further negotiations Janice Milford was literally dead, and even Eva Hurst was not eternal.



THE

By

ABNER J. GELULA

FOREWORD

I FIRST came to know William Porter as a classmate at the Massachusetts Institute of Technology. We both had entered college in the same year and were majoring in Electrical Engineering. But, just why either of us was studying any form of engineering was a question; certainly not because of the monetary prospects of the profession, for our parents were quite wealthy. We were studying engineering as merely a matter of "studying something."

Both Porter and I were of similar dispositions—carefree and of an adventurous bent. Fate seemed to have thrown us together at the very beginning. From our Freshman to Senior years, we

WHISTLING DEATH

Called upon to destroy the nation he had deserted, William Porter, American, faced the might of Moravia . . . alone!

were roommates, and with each succeeding year, our hopes and ambitions found a more common ground. It was not unusual, therefore, that our paths continued parallel even in the decision, upon being graduated, that other fields than the pursuit of Engineering held a greater lure—especially since the compensatory item was of no consideration. We both craved something that possessed greater prospects of action and adventure; to do and see things that Engineering could never afford us.

Accordingly, we decided to enter newspaper work and, through the aid of family contacts, secured positions on the staff of the Chicago Daily News.

The activity associated with this work fitted perfectly with our mutual ambitions for adventure. So enthusiastic did we become in our new field, and so varied were our duties that, after about a year we decided to attempt specialization in a particular branch of reporting. From the outset, Porter wanted a post in the Washington bureau of the newspaper. I, still holding a secret notion of eventually finding some use for my engineering training, hoped for a post of Science Editor—to become an expert in the art of correctly reporting news of a scientific nature.

In the meantime, however, as a hobby, we had set up for ourselves a small electrical laboratory where, after a hectic day, we would tinker with various ray-tubes, high voltages, and similar apparatus only of a dangerous nature for the thrill of experimenting.

Porter might have become an electri-

William Porter

cal wizard if he had stuck to the game, but since it failed to produce the thrills that he demanded of life, it took a secondary place in his plan of existence.

IT was about a year later that a vacancy occurred in the staff of the Washington office, and by dint of pleading, and promising, Porter finally was given opportunity to fill the long-cherished position.

Within two years he became, through sheer ability, one of the recognized authorities on Washington official life. Some of the best and most important stories of national and international interest originated from his pen.

Then the Wanderlust again seized him. Nothing but becoming a foreign correspondent could satisfy. The prestige he gained in the fine work done at Washington minimized his difficulty in being appointed representative of the Daily News, in Moravia, when the vacancy occurred.

The idea of settling in a country that was rapidly becoming one of the world powers; coming into close contact, with a new form of government, radically different from any other, thrilled him. It appealed to his sense of adventure. When he told me of his appointment he urged that I accompany him, and only with some hesitation did I agree. Secretly, I also craved a change of scene and activity.

For a time I was "on my own" in Moravia. My paper would not sanction another American in their foreign office, explaining that it was sufficient trouble to "break in one green man."

But Porter proved that he wasn't so green. The success he made as a Washington correspondent was meagre compared to the abilities he displayed in handling news of foreign diplomatic problems, particularly those directly associated with the Moravian government. In fact, so tactful and well-written were his reports that in a comparatively short time the Moravian authorities took cognizance of him and he was given an increasingly greater access to places and people ordinarily barred to others. Obviously, his value to the Daily News grew correspondingly and, in time, his request that I be added to his staff, was granted.

Porter was a good newspaper man. Yet his ability was not necessarily of a particularly keen "nose for news," or an unusual writing ability. In fact, I never believed him to be possessed of either of these qualities to any exceptional degree. But he did seem to have a sort of sixth sense—a psychological sense that permitted him to weave his way into inner circles.

If ever fate took a hand in the destiny of a man's life, Porter was the example. Little did anyone realize the

part he was destined to play in the salvation of his native country—and possibly the entire civilized world as he, step by step, came into the strategic position planned for him by some Greater Force.

IT was during his coverage of routine matters that, one day, Porter received a note from the office of the Commissionaire of State, asking that he call upon him. The following day found him at the appointed hour in the office of Millard Belin.

A stately, aristocratic person of powerful proportions gave Porter a slight nod of recognition as he entered. Porter knew Kitman, Belin's secretary, from previous visits. His steel-grey eyes overshadowed by heavy, black brows gave a feeling of something akin to determination—determination that seemed to border upon cruelty. A neatly trimmed beard and mustache aided in hiding any facial expression which might tend to bespeak that which he refused to voice. Kitman was always cold, mysterious sort who kept aloof from news and newspapermen.

Porter waited but a few moments before being ushered into the presence of Mr. Belin, who held one of the most important posts in all Moravia. With him were two other men whom I knew by previous contacts: John Litten, Chief of the Division of Communications, corresponding to the American Post Office; and Louis Antar of the Bureau of Censorship.

One was drawn almost irresistibly to Belin. Just what it was in his dynamic personality that held so powerful a lure, would be difficult to define. In stature he was little more than five feet, six inches; his body, in keeping with his height, was of slight build weighing hardly more than 130 pounds. Neither his dress nor his demeanor was of the

Millard Belin

impressive type that one might expect to find in a man of his position. Indeed, his whole being gave little note of authority or of an official nature.

But he radiated personality. His head appeared to be a bit too large for the body; his black, wavy hair combed carelessly back from an expansive forehead, seemed to accenuate the illusion. Although I had often spoken to Belin in the course of my reportorial duties, and fully appreciated the greatness of the man, it was the future that was to reveal his true genius.

I knew also, from previous visits, Litten and Antar. Typical Moravians who grew up with the new nation, they were not particularly impressive and a curt nod of recognition completed the formalities of Porter's entrance.

LITTLE time was lost in launching upon the subject of the call. Belin

opened with a question regarding Porter's opinion of Moravia, to which he replied that he was fully in accord with its ambitions and considered its commercial and diplomatic progress remarkable.

He was then asked as to whether he had any definite plans for the future.

"According to present indications, Moravia apparently holds the greatest opportunity for me," Porter replied, "and I believe that I shall continue to represent American news interests here."

Belin toyed with a pencil on his desk, as if deeply interested in its composition. No one spoke for several minutes. The two other officials present adjusted themselves in their chairs, during the lull, seemingly bored with the progress of the meeting.

"A new office is to be created in my department," Belin began. Then, characteristically, the next sentence brought the climax. "It is my desire that you fill this post. I feel certain that you are particularly fitted to make it a worthy and successful adjunct to this government—more so than any one else. The position is of extreme importance and requires not only a knowledge of the work, but a firm patriotism built upon reason rather than upon a vacant idealism. The office will come under the jurisdiction of the Bureau of Censorship. You will head this office which will be of any logical number of assistants that you may deem advisable. This post, in your case would, of course, necessitate one thing: to relinquish citizenship in the United States and becoming a citizen of Moravia."

Whether the fact speaks well or ill of Porter, it remains that he was never squeamish about emotional ideals, although obviously, he did not relish the idea of foregoing his American citizenship. However, he reflected, he was in Moravia now and was happy and contented in the progress he was making in starting, practically, with the beginning of a new nation and becoming a part of its history.

He reasoned that to accept Belin's offer might be the logical thing to do, despite the requirements. Especially so in view of the fact that he was being offered a position that would allow a definite part in moulding the life and destiny of 175,000,000 persons of this new nation. So Porter extended his hand in acceptance.

NEITHER Belin nor the other two officials commented regarding Porter's acceptance, but a smile of satisfaction and faintly perceptible nod of approval came from Belin which seemed to reveal a feeling of a new cordiality, for now Porter was a Moravian and, to all practical purposes a member of that inner circle which controlled the thoughts and activities and the very lives of a vast portion of the world's population.

Porter's work came under the direction of Antar, although he rarely interfered with the procedure of the new office. More often, however, Porter was in contact with Belin. It was only during an executive conference, did he have any contact with other officials of the government. All statements or "news" for public consumption came to him by an approved correspondent from the various departments. Personally, he did no reporting except at conference where he was the only person present who was not a department chief.

It may seem unusual that so great a confidence was reposed in Porter. But it should be understood that for a long time this confidence had not been extended. Porter was continually aware of being under the eye of the Moravian Intelligence Service and only that his

office was for the preparation and proper dissemination of reports, truthful or otherwise, there was little that the government had to fear. Fully 75 per cent of all propaganda was directed for release in the United States of America because thus far this was the only country which had not officially recognized the new nation. Porter's knowledge of official America as well as American newspaper requirements, was particularly valuable to the government and apparently only because of this, was Porter, rather than a Moravian newspaperman, selected for the post.

Even after two years as chief of the Bureau, lack of a complete confidence in his secretiveness became particularly apparent when an executive session was called and he was notified that, at this meeting, it would not be necessary that he attend. I tried to find out what occurred in that session, but I wasn't to know until it was brought to me some time later in a rather startling manner.

Before I launch my story, something should be known of the tactics and trend of thought of the Moravian executive mind.

Under the leadership of an autocratic dictator, Sartito Michel, Moravia was rapidly gaining a place for itself in the first line of nations. However, because of its radical form of government, difficulty was found in receiving diplomatic recognition from other countries, particularly the United States. The upheaval and overthrow of a monarchy brought about a new idealistic governing force that, to all indications, might eventually become practical and be a marked improvement over other governing powers of the world.

Michel sat at the rudder of State—invisible, invincible and unapproachable. All thoughts, hopes, ambitions and plans met in him. Calmly, without haste, he imparted orders; raised some,

Ivan Stemenov

crushed others; bought and sold heads and souls.

Snarling doors of overcrowded prisons closed behind an ever-increasing number of political victims. Human blood flowed like water. Curses and groans were heard amid the cheers. The eternal law of survival of the fittest was here worked out to the letter. But one thought ruled official Moravia: the Moravian doctrine must reach to the corners of the earth. Those who would deter its progress must be crushed before its irresistible onward march!

CHAPTER I

For the Advancement of Moravia!

SIX pairs of eyes were focused upon Professor Ivan Stemenov as he rose slowly from a comfortable overstuffed chair and turned majestically to face the Executive Council.

He was in no apparent hurry to begin his little talk. Seconds passed silently as he eyed, visually appraising, each of the highest officials of the United Unions of Moravia who were seated before him. He toyed carelessly with the spectacles he had removed from his nose. A powerful, arrogant air seemed to pervade from the man that radiated a self-confidence to an almost insufferable degree:

Groomed to perfection in striped trousers, frock coat and meticulously trimmed goatee and mustache, the noted scientist presented an appearance almost satanic.

Only Michel, grim, cold and calculating, knew why the noted scientist was present. Only Michel, all-powerful of the Moravian Union, could conceive a plan as was to be outlined here. Only Michel, determined, immovable, resolute, the man without heart or conscience, would allow even a discussion of the subject that was here to be considered seriously.

As to the composition of the Council, more properly referred to as the "Council of Six," each was a supreme dictator over his individual department. As to each man's associations and the destinies he controlled, let us not concern ourselves. Suffice to say that compared with Michel, they were inconsequential, with the exception of Belin.

Michel's introduction of the scientist was short:

"I shall not attempt to explain Professor Stemenov's plan, nor shall I go into the details of how such a plan may be effectively worked out. We are, gentlemen, interested only in results.

"Every country of the world, with the exception of the United States of America, as you know, officially recognizes Moravia on a diplomatic basis. America's official recognition of our nation has now become almost a necessity. International commerce has become increasingly difficult with the barriers set up by the United States government. Efforts to bring about a favorable diplomatic relationship by either negotiation or financial coercion have proven to no avail. It would be least desirable at the present moment to seek an open break or hostilities with that country, for obvious reasons, although we certainly need not fear it. There is, however, another way that will definitely bring about the desired result, and that way will be pointed out by the learned professor who is in our midst today.

"ALTHOUGH unaware of it, Professor Stemenov has been watched closely by our Intelligence Service, and all reports show him to be staunchly pro-Moravian. Indeed, if he were otherwise, the plan would never have been broached to you gentlemen today.

"In deciding upon the use of the plan, I ask only that you consider your country and its future. I ask that you cast from your hearts any feeling of conscience, for the dictates of conscience is rarely logical reasoning."

Michel paused a moment, looked into the eyes of each man facing him, as if reading their minds, then continued:

"Only by the disruption of capitalistic power can Moravia ever hope to break America's resistance. We must win over the individual citizen in a way that demands judicious handling. The united opinion of the American citizen can force the opening of diplomatic relations. And the only way possible to foster this pressure is to strike at that which he holds most dear—his dollar! If that becomes valueless, the collapse of the entire capitalistic system will ensue! When that occurs, like drowning men these Americans will clutch at a straw! Then Moravia steps into the picture. Just how this will happen, I

hope to explain after Professor Stemenov tells you of his discovery."

Michel turned to Professor Stemenov, and without further formalities, the eminent Moravian biologist and scientist spoke.

"I am happy that our great leader, Comrade Michel, stressed the point regarding conscience," he began, "for what I have to say, and what I have to offer for the future welfare of Moravia and the world, will cost *lives!*" A powerful fist was brought heavily upon the table to lend emphasis to the statement. "To falter because of sentimental reasons makes your hopes again a thing of the future. To act in a favorable and, if I may, a fearless manner, means that the day of Moravian supremacy is close at hand."

THE council was all attention. The usual interjections on the part of members was conspicuously absent. Each man seemed to become an entity rather than a part of the group. An air of anticipation filled the small, heavily-draped room. The rise or fall of a nation might hinge on the decision reached here today. Professor Stemenov, taking a leather case from his pocket, opened it and produced two vials. He continued:

"These two tubes contain the key to the entire plan. One vial contains a deadly germ; the other contains the only known serum. There are many germs of a deadly nature known throughout the civilized world, it is true. But this organism is a wholly new discovery as far as the world of science knows. This particular organism is unusual in the biological world, for it is communicable only by contact with an article of the same composition with which it is originally infected. It is not contagious and its spread is limited to that medium which originally carried it. The very constitution of this unique micro-organism is such that it immediately accustoms itself to a definite condition and, until that condition is forcibly changed, it is loath to change the nature of its surroundings an iota!

"Indeed, in my experiments I found difficulty in fostering the development of the original germ under a change of conditions. When I infected a piece of Maple wood, for instance, and carefully nurtured the growth of the organisms on it until generations of the germ had become thoroughly accustomed to the conditions it presented, another type of wood, such as oak, when introduced, failed to become infected although other pieces of maple were at once seized upon by the germ!

"And further, so uncanny is the organism's sense of desirable conditions, that it readily distinguishes even grades of paper! Germs reproducing under conditions presented by a certain pulp paper do not infect pulp paper made of another wood, even though it differed but slightly! Similarly, various rag papers are also distinguished by the germ.

"The germ, as it affects the human system, is similar to tetanus, but much more rapid. Persons contracting the disease rarely survive unless the serum is applied in time, death ensuing within two days. And, most remarkable, the germ will leave its adapted environment of generations only for live tissue such as the human body, into which it makes entrance by an opening in the skin, regardless of how minute that break may be. No infection ensues where the germ enters, thus leaving no clue or trace of the individual's having been unwittingly innoculated.

"Now to propound the plan! As I explained, the germ will infect only that which has originally been infected as the carrier. Disintegration of the car-

rier is comparatively slow, although reproduction of the germ is remarkably rapid under practically all conditions except extreme cold or heat."

The professor's tone changed in preparation for his next statement, accenting each word as if insinuating an added meaning while bespeaking the facts. "It would be a comparatively simple matter to originally infect a small quantity of paper money. The spread of this infection would be taken care of automatically for the contact of other paper currency with the infected bills assures an ever-growing number of carriers."

THE Council was held spellbound by the audacity and possibilities of the plan as it began to reveal itself.

"Under test, the germ will infect no other paper, for the quality of the paper and the ink used in the manufacture of currency is such that, of necessity, it is practically exclusive. Further, the germ will, in time, so accustom itself to currency as to actually die before it will change or infect any other medium, excepting live tissues.

"For the advancement of Moravia and for the future of mankind the plan evolved will result in considerably less fatalities than the war which otherwise inevitably looms upon the distant horizon. Through means of which you shall later learn, the people will hear that currency is the carrier of the germ, after thousands have succumbed to its ravages. The result is obvious: the populace will immediately discard the use of money. Business will come to a halt. Panic will ensue. Merchants will hesitate to extend credit on purchases. Only one hope will remain: the citizen must give ear to a plan that promises succor to him and his family.

"Moravia will become the 'Big Brother.' She will offer aid to alleviate the suffering. Foodstuffs will be shipped in to be given away to the unfortunates while the United States, seeing no return on its investment because of the collapse of the monetary system, will store its food as it has been wont to do in the past. A new feeling will be built up towards Moravia. Despite the diplomatic persecution to which she has been subjected, she aids the nation that has tried to block her progress! Sort of an enforcement of the 'Golden Rule.'

"Then to top the climax, a Moravian scientist will discover a serum to eliminate the disease, and Moravia's place in the world will be restored, for who could hold hate against one who has befriended another in a time of need?"

PROFESSOR STEMENOV carefully replaced the container of two vials to his pocket, and returned to his seat. Michel arose and demanded order, for the plan had thrown the entire Council into a hasty informal conference. He asked the opinion of the individual members of the Council and all immediately signified their hearty accord with the plan—except Belin.

"The plan that Comrade Stemenov has laid before us is stupendous and doubtless will have far-reaching results," Belin said. "But it seems to me that an attempt to force an issue by this means may prove to be a boomerang: Moravia is in no position to invite the hostile attitude of the world. If the world should ever learn of the effort made by Moravia to leap to recognition by this means, the results might be disastrous; Particularly, the target country—the United States of America—which hold the commercial power of the earth, could easily sever completely all trade and industrial contacts.

"To break down her commerce will directly affect our country for, regardless of official recognition, Moravia does an individual business with Amer-

ica on a large scale. Gentlemen, you cannot play with the destinies of 130,000,000 people without radically affecting the status of your own. Moravia owes too much to America for its present position. Our every industry utilizes Americans to teach our people the various trades. In my judgment, we would do far better to gain a desired superiority hy producing a superior product—not hy the undermining of another nation or the destruction of its people!"

A sneer crept across the face of the scientist as he listened to the remarks of the Council member. "It seems, Comrade Belin, that you are being guided by your heart rather than your brain," he ventured without rising from his complacent position in the heavily upholstered chair. Belin made no reply.

However, little attention was directed to Belin's opinion other than the terse comment of Michel that "unless another member feels as Comrade Belin does, we shall table the matter and make a definite decision at our next meeting."

CHAPTER II

Deadly Dollars

SCARCELY three months had elapsed since the time Professor Stemenov had laid his diabolical plan before the governing body of Six in the Council Chamber. The death toll in the United States was mounting rapidly. Already more than 100,000 persons had succumbed from a terrible unknown malady, and health authorities as well as scientists were at a loss in their attempts to either trace the source of the plague or to isolate the germ.

Each day entered the names of thousands more who were victims of the disease. Quarantines, serums, precautions or preventatives were of small aid in stemming the wholesale advance of death. Statistics gathered regarding the disease did, however, show several salient facts: First, that the new cases reported on Sunday were always greatly less than on weekdays; second, that the spread of the disease seemed to be limited to the borders or slightly beyond the borders of United States; third, that persons confined in various institutions such as hospitals, prisons, and asylums seemed to be practically immune; and fourth, child victims were greatly in the minority.

These facts were studied by the most eminent scientists in the country, hut there seemed to be no interlinking facts that would even remotely suggest the character of the plague. Every class, color and creed was affected, hut it was the vast "middle-class" that supplied the greatest number of victims. The effects of the disease had already made itself known in the business world. Insurance companies refused to pay indemnities to heirs of those who died from the plague. Fear of being the next victim of the horror held people within their homes. As a precautionary measure, despite assurances on the part of the medical profession that the disease was not contagious, all centers of amusement or wherever crowds gathered, were ordered closed.

THEN suddenly, came the discovery from an obscure physician that the germ was carried on currency—on the money of the country! This astounding fact was disclosed to an under-secretary of the Treasury. Biologists from the Bureau of Standards were summoned to affirm the doctor's statement with the resultant report substantiating the claim.

A Cabinet conference was called to apprise the department heads of the condition. To halt suddenly the circulation of currency would entirely dis-

rupt the business of the nation, and a plan advanced by one of the Bureau biologists was believed to be the most advisable until further means could be found to curb the malady without affecting the financial and commercial status of the country. Those who were apprised of the recently learned facts were warned to hold the secret inviolate for upon their confidence rested the security of the nation.

Newspapers the following day carried blaring headlines that a preventative had been discovered. All those who would be free of the disease were advised to don rubber gloves immediately upon arising in the morning and not to be removed until retiring at night. Bowls of disinfectants must be kept handy in every home, at convenient places in every store or office, and on specially constructed stands in the streets. And, under no circumstances should the rubber gloves be removed except when the hands as well as the gloves were washed in the disinfectant.

This announcement, kept on the front pages of every newspaper day after day, broadcast by every radio station, thrown on the screen of every theatre, distributed to every home by mail, placarded on every fence and billboard, caused a furor. No explanation was forthcoming and only the blatant facts displayed by the announcement wherever anyone looked or heard, brought demands from press and public.

The people heeded the warning, however, resulting in an immediate drop in cases reported. Upon investigation, it was found that new victims were composed almost wholly of those who disregarded the broadcast announcements. As the number of cases diminished, a sigh of relief swept the country.

OFFICIAL Washington, however, was not asleep. The Federal Bureau of Investigation brought some startling facts to the Secretary of State. In a florist's greenhouse located in New York City, a complete biological laboratory was found. An unwonted activity of "messenger boys" going in and out caused one of the agents to stop one a few blocks from the greenhouse and inquire as to the kind of flowers in the flower box he carried.

Informed that they were roses, the messenger boy started away on the motorcycle-sidecar vehicle he was riding. The secret service man, detained him, however, asking if he would sell him the roses, producing a $20 bill.

"These flowers are extra fine and there are a lot of 'em, Mister. More than $20 worth. Besides, if you want some, why don't you go over to the store and buy them? I can't sell you these."

"I'll give you *five hundred dollars* for those flowers," the operative ventured, in a determined effort to find out just how much of a messenger he was, or what kind of flowers would cause this display of hesitancy.

"Can't sell 'em," the messenger declared with finality and turning the handle of the accelerator of the machine which was held in gear, he sped off.

Assured by the attitude displayed that there was "something in the wind," the operative commandeered a nearby taxi and after displaying a badge, gave orders to chase the motorcycle. As the cab drew close to its quarry, the cycle increased speed despite the dangers of heavy traffic. Then suddenly, the cycle swerved into a side street. But the messenger miscalculated his speed and distance in an effort to get away from his pursurer.

Amid a screeching of brakes and the cries of passersby, the cycle crashed headlong into the side of a building catapulting the driver against the wall, killing him instantly. The pursuing cab

drove up and the agent rapidly elbowed his way through the growing crowd. Identifying himself to the two policemen who hurried to the scene, he opened the side car and removed the large box of flowers. Taking it under his arm, he went into a nearby building and opened it. Much to his chagrin, the opened box *did* contain flowers—and they were roses!

He looked the flowers over carefully, but could see nothing unusual about them other than, as the messenger had told him, they were extra fine roses. His impulsiveness might now result in serious charges against him in the death of the messenger. He returned to headquarters and explained the entire affair, producing the box of flowers which he carefully carried. The chief looked at the roses and remarked how unusually beautiful they were and, with giving particular thought to the predicament of the operator, placed the flowers in a vase on the desk of his secretary. It was while crumpling the box so that it would fit in the waste basket that something unusual attracted his attention.

"Say, this is heavy for a cardboard box," he commented.

THE agent was immediately alert. Grabbing the box from his hand, he proceeded to rip it apart and in a few moments, hundreds of five-dollar bills dropped to the floor.

"What's this?" the chief exclaimed, "Where did all that dough come from?"

"From a false bottom in that flower box," the operative returned. "I knew there was something phoney about this thing. Funny that the false bottom stunt slipped my mind. Looks like a bunch of counterfeiters to me, and I know where they are. How about a few choice men and a warrant for a little raiding party? We've got to be snappy about it before that gang gets word that their messenger got knocked off!"

In a comparatively short time, the police, led by the secret service agent, were inside the greenhouse. While the occupants were detained, the police searched the interior but could locate no machinery or engraving paraphernalia. In a large room in the rear of the flower shop, however, a laboratory in which were a number of test tubes and a few stacks of currency was discovered. But this was slim evidence upon which to link counterfeiting with the place—especially since it had been determined that the bills were not counterfeit!

A newspaper reporter who accompanied the raiding party knew something of chemistry and began a little research on his own account. Calling the secret service agent's attention to the laboratory, he suggested that an experienced chemist or biologist be sent for to determine just what this was all about. "There's something rotten here, you can bet," the newspaperman suggested.

"McWilliams, in the Bureau of Standards, would love to jump on a case like this," the operative mused. "Think I'll give him a call. He can be here in a jiffy from Washington by plane."

It was just a little more than an hour later when McWilliams appeared on the scene. It was explained to him that here was a case he might be able to solve with test-tubes and microscopes. There was something unusual about the place and the peculiarity seemed to lie within the field of the laboratory.

Every member of the biological staff had been told of the tainted currency condition which existed and their efforts were being directed wholly along lines of solving the mysterious activity of germs on the money.

Studying the cultures which were in

the laboratory of the greenhouse and the money, he leaped up suddenly as if mad, proclaiming: "I've found it—I've found it!" Without giving further information, he directed his agent-friend to hold the men in the place until he heard from Washington—that he had rounded up the gang which was threatening the very foundations of the country—far worse than a counterfeiting mob could ever do!

CHAPTER III

The Frequency Machine

A PRE-ARRANGED appointment in a rendezvous on the outskirts of the capital of Moravia between Belin and Porter, took place early in the international complications which ensued following the discovery in the New York City greenhouse. Complications which might have ended tragically had not a man of the character of Belin sat as a member of the Council of Six.

"I called you here today so that I could talk to you alone," Belin began, his eyes suspiciously scanning the walls, windows, and heavy draperies of the single-room cabin in which they met. "My meeting you this way may result in my arrest or death should it ever be learned that I revealed the information which I am about to disclose to you. Further, the fact that you are a confidant may also cost you your life if it is ever found out. Are you willing, knowing this, to listen? That which I shall relate involves your country, but it is not your country in which I am interested—it is the safety and security of millions of people and the happiness of the world that is now in the balance!"

The personal hazard of which he reminded Porter meant nothing compared to the feeling of anticipation which possessed him. He would have suffered a hundred such possibilities to learn more of the inkling of fact which Belin had given him. Porter was a newspaperman and the possibility of a story that might rock the world, permitted little hesitation in an affirmative reply.

Belin got up from the table which held the empty glasses of tea which the pair had just finished, to more closely inspect the room and the exterior of the cabin. Satisfied that he was not being spied upon, he sat down, drew his chair closer to the reporter, and began the story which almost set the world afire!

HE RELATED the plot to infect the currency of the United States; how the "helping hand" act was planned but failed because of the unexpected discovery; how the official recognition of Moravia was seen on the horizon if the scheme matured. And he went a step further into the plot revealing that which, heretofore, was little dreamed.

"A preventative of the disease has been discovered," he told Porter, "the germ-culture plant seized, and the United States is re-manufacturing currency and burning the old rapidly as it can be called in. Moravia realizes that her plan has been a failure, and the source of the diabolical scheme will, no doubt, be learned eventually. When that happens, the greatest war the world has ever seen becomes inevitable. But, peculiarly, I am fearful of it because Moravia is more than prepared for it."

Belin paused a moment. Nervously, he again scanned the room. Porter did not dare interrupt lest he might, by any chance, make Belin reflect upon his revelations and cause a change of heart. Belin continued:

"As much as I love my country and her ideals; as much as I love the Moravian regime and her hopes for the

future, so much more do I love Humanity and the World! A war with Moravia at this time means the end of civilization! It must never come!

"Moravia has one of the finest if not the greatest army and air force in the world today. That is a recognized fact. But her army and air force is merely a display of strength to warn off the attacks of nations who might gladly invade her territory either for the richness of her lands or to eliminate her commercial competition, which is becoming continually more keen. Moravia's armed forces are little more than glorified policemen. It is her scientists who comprise this nation's real army! And these men hold the very existence of civilization within the palms of their hands for in the archives of State lay plans for an apparatus that can wipe out an entire nation in one day! Before even mobilization could occur, the enemy would no longer exist!

"MORAVIA, understand, does not seek the commencement of hostilities. Commerce, growth, and expansion are manifestly more desirable. But the destruction of one or a million or a hundred million lives to save herself is of no consideration if it means her defense. After all, she would be only following the first law of Nature: self preservation at any cost.

"And heed this: if Moravia is called upon to use this recently perfected machine of war, the enemy becomes a country of the Dead! There is no means whereby it is possible to elect who should die—it is indiscriminate millions or no one! If selection were possible, I would not be speaking to you like this today. But the slaughter of a hundred million people—God, that's something that no man could bear to witness unless he were utterly heartless as I *should* be as a member of the Council!

"The germ campaign of Stemenov has meant the lives of more than a half-million people—itself, a sufficient suffering to wreak on any nation. I can peer into the future, Porter! Unless something is done, the opening of hostilities means the end of the world. Porter, I can help *you*, but *you* are the only man who can avert this catastrophe!

"The plans allow for the completion of Moravia's war-machine within one week, if necessary. I know you must be desirous of learning just what this machine is capable of doing, and how it accomplishes its purpose. Let me tell you, briefly, to further impress upon your mind the vital necessity for prompt action.

"In the basement of a large Moravian warehouse are a hundred peculiar-looking machines which, to the layman, appear to be little more than the chassis of ordinary radio sets but which are, in reality, the most effective, the most inhuman machines of death ever devised! A veritable madman, albeit a brilliant scientist, invented it. Within the circle of the few who know of its effectiveness, it is referred to as the Super-X.

"It is a super-frequency machine which is carried into enemy country by a thoroughly perfected automatic-rocket-plane. The rocket, released in Moravian territory, travels with the speed of a bullet, attaining a height of 50 miles at the apex of its parabolic flight.

"The Frequency Machine is then automatically, by pre-determined timing, released, attached to a parachute, and proceeds to sing a fiendish song of death as it descends, for each machine is tuned to the frequency of the human system, rending immediately every nerve in the body! At the height of three miles, the effective range of each machine is approximately 100 square miles, and not a living soul can survive its terrible force. After it reaches the

ground, its effective radius is cut to less than half.

"I WITNESSED the testing of a smaller and less powerful machine with a group of political prisoners as the targets. Only because we were fifty miles from the nearest inhabitant, and we were enclosed in a specially-built lead house in which were lead-glass windows, was it possible to survive its onslaught.

"The poor fellows never knew what struck them. They were little prepared to die. They were told that they were to be put to work on a project and, clad in working clothes, with pick and shovel, the poor unfortunate devils unknowingly marched to their doom. The Super-X was situated in a thicket about three miles away, a remote control station being placed in the lead-sheathed cabin with the witnesses.

"I almost screamed aloud in a hope to halt this killing of men who were guilty of nothing more than being of a different political belief but it would have been of no avail. Bloodlust seems to be a necessary part of the upbuilding of a new government and the witnesses were all anticipating the event with high hopes that the test would prove successful for upon its success hinged the future protection of Moravia.

"The remote control key made contact and through the heavy walls could be heard a faint whistle growing higher and higher in pitch. Looking through the windows, the prisoners momentarily ceased their digging having apparently also heard the peculiar distant whistle. Then the pitch went out of range of hearing and, thinking no more of it, the prisoners resumed their work. This all took place within the space of about two minutes!

"Then the frequency became attuned to that of the human body! Whether it was the fact that a minor amount of the power penetrated the lead walls, or whether it was that which I saw next that caused me to shudder, I cannot tell. But it is a sight that I never want to witness again.

"The prisoners suddenly halted their digging, their faces taking on the most grotesque contortions. Apparently unable to control their nerves or muscles, they clung to the tools in vise-like grips, then, with a sudden stiffening of the arms and legs, eyes bulging, sweat pouring from their racked bodies, they mercifully lost consciousness and toppled to the ground like tin soldiers—stiff—straight—dead!

"Yes, the test was a marvelous success. Everyone crowded around the genius whose twisted mind could conceive such a device, and congratulated him. Moravia was now secure!

"The entire demonstration took but three minutes, and actually but one minute from the time the pitch of the Super-X had passed the range of audibility. Imagine, then, the havoc that could be wrought before a parachute, lowering such a device from a height of three or four miles, reached the ground. Remember, that before the machine is released from the parent rocket, it has already passed the point of audibility and is ready to start its slaughter!

"Porter, need I tell you more? I take my own life in my hands to tell you this, but to save civilization, what does my insignificant existence matter? You must *act!* Obviously, what I have told you is not for publication, for it would precipitate war — and then nothing could be done. You must work quietly and unobserved. You can afford to have no confidant nor confederate. Trust no one but me. I shall not ask for acceptance of the obligation placed upon you —you can't refuse, you mustn't fail!"

Belin looked Porter in the eyes and grasped his hand. Porter had risked his life many times before with much less at stake. What is mere life against that of posterity! He must accomplish a purpose. Together, Porter and Belin discussed a plan.

CHAPTER IV

Two Men Against a Nation

AS an electrical engineer of no mean ability, Porter, now transferred to a new position in the Moravian Bureau of Research, rather enjoyed his new job. Although several years had passed since he last experimented with electrical apparatus, he found no difficulty readjusting himself to an environment which was once so familiar, and soon earned the esteem of his co-workers.

To secure a place in the Bureau had not been difficult with the aid of Belin. Such employment was an important step in their mutual plan to prevent an impending world conflagration. Both Belin and Porter realized that, although the elimination of the weapon possessed by Moravia would not necessarily avert hostilities if the fact became known that the official government was responsible for the plague, it would prevent the wholesale slaughter of innocent people which war refers to as "the enemy."

Belin's activities would have obviously been considered traitorous by his colleagues. But the philosophy that he propounded eliminated such a thought from his own mind, for he often referred to and considered himself "a citizen of the world with headquarters in Moravia." Although not a pacifist, as one is commonly painted, he defended his theory of war by declaring that "while individuals are, to a certain extent, civilized, nations are still barbarous. The individual is peace-loving and will resort to force only as a last resort. But the mob, of which that individual is a part, holds a lust for blood. If government is representative of the citizen as an individual rather than as a group, it also must seek every means to avert hostilities. Nations, like individuals, must no longer be guided by the commonly applied law of the survival of the fittest, for often the 'fittest' is physically the weakest, but mentally the strongest, and for civilization to continue, this must become a world of brain-power, not brawn-power!"

SO Belin continued to lay his plans to save the world and its people. Working with and through Porter, his fight was against Time—against the time when America would—and must—learn of Moravia's activity. Already a finger of suspicion pointed toward the ambitious nation. The men found in the "greenhouse" did some talking, but even telling all they knew of the situation was not sufficient to definitely place the source of the scourge upon the activity of a nation.

Two weeks had elapsed since Porter had entered the Research Bureau, when he received a note in a brief code originated between the two, to meet Belin at "the cabin"—the place where they had originally met that night.

"Much has happened since I last spoke to you," Belin began. The dim cabin light seemed to accentuate the deep lines of care on the diplomat's face. His furrowed brow spoke of many sleepless nights of concern over the possibility of an impending tragedy. He closed his eyes for a moment in a manner which seemed to bespeak a sort of hopelessness in the situation at hand.

"America has charged that Moravia caused the Plague!"

Porter gasped. He expected that, yet it came as a surprise. How could they

have learned? What would happen? Had the discovery been made public? A thousand and one questions crowded into his mind. A momentary pall hung over the two men. It seemed like the beginning of the end. Neither spoke. Porter lit a cigarette and slowly paced the small room, his eyes glued to the rough board floor as if trying to read there a solution to the problem.

Belin looked up. "We must think and act quickly. The future of the world rests on your shoulders.

"The entire situation is, at the moment, being held within a small diplomatic circle in both countries. A request for an explanation has come from Washington and has been answered by a sweeping denial of all allegations. But that will not end the matter. Opinion, when the public learns of Moravia's part, will force war. Furthermore, Moravia, at the present moment, is not at all adverse to hostilities, although but a short time ago she might have seen a distinct disadvantage to such action. There is little doubt that America will first demand that all commercial activity between the two countries cease. The reason must eventually be forthcoming and Moravia will force the issue by being the first to release the diplomatic notes which have been exchanged, to the press. Then it will be merely a matter of days before war will be declared! That is the story in a nutshell."

"But can't something be done—can't YOU do something to avert this catastrophe? Can't I do something—anything?" Porter questioned pleadingly.

BELIN was thinking. Seconds passed that seemed hours. Porter gazed at the man seated opposite him. The very stillness of the place held a foreboding of doom. Without changing his position or even looking up Belin broke the silence:

"Porter, there is hope. War can be averted. A new and better world can come to be. A greater Moravia will hail the future—a future that neither you nor I shall ever see." It was a sort of reverie that Belin began, but he soon launched into the main theme of his plan.

"There is but one possibility—about one chance in a hundred of being successful. I can carry out my end of the plan. If you successfully accomplish yours, the war is 'over' and a new life begins.

"With the declaration of war, a select number of engineers will become part of the regular army. They will then be transferred into a secret division who will carry on the actual warfare through the Super-X. You will be a member of this division.

"There will be only one thing for you to remember—" Belin looked squarely at Porter, his face rigid, his eyes half closed. He spoke slowly—determinedly. "The first rocket containing the high-frequency machines must *never leave the ground!*"

The engineer-reporter seemed to be under a sort of hypnosis. He listened intently, a cigarette held limply between two fingers.

A sharp rap at the door precluded further discussion and brought both men to their feet. "Hide!" Belin commanded, in a tense whisper. Porter swung himself through a tiny trapdoor in the floor. Belin spread several sheets of paper on the table before him, and busily occupied himself with some pretended problem.

"Come in," he called.

THE door swung open admitting a stately, autocratic gentleman, who, in a sarcastic manner, formally introduced himself as "Mitchell Kitman, personal secretary to M. Belin, Com-

missionaire of the Department of State, if it please your Highness."

Belin blanched under the verbal assault. "What are you here for? How did you know I was here?" he demanded.

Kitman calmly removed his gloves and overcoat and carefully placed them on a nearby chair, purposefully accentuating a disdain for his employer. Standing but a few feet from Belin, and towering over his comparatively frail physique, Kitman smiled sneeringly. He felt in perfect command of a perfect situation. Standing with feet apart, the Secretary gazed haughtily at his superior, contempt motivating every feature. He drew a studded case from his pocket, removed a cigarette, lit it, and breathed a heavy inhalation into Belin's face.

"As your personal secretary, Mr. Belin," he finally replied, "it becomes my duty to know where you are at all times. And why these secret meetings with an American newspaperman?"

Belin by this time had recomposed himself. "It seems you take considerable liberties, sir. I repeat, why are you here?"

"To inform you of two things," he answered through a twisted smile. "First, that unless you immediately resign your office by mail, recommending me for your post, and then disappear, a brilliant career might be dragged in the mud. Secondly, to tell you that America declared war an hour ago!"

BELIN was thinking fast. It was a battle of wits and Kitman was no match under ordinary circumstances. But here the secretary held an upper hand.

"Well, Kitman, I guess you win," Belin replied, concealing the excitement which raged within him at the mention of the outbreak of hostilities. "But tell me, who came with you, and who else knows of my meetings?"

"You make a wise decision, Mr. Belin," the secretary advised, "and you may rest assured that no one came with me and no one else knows of your secret meetings with Mr. Porter, nor that your discussions were of a treasonable nature! Incidently," and he addressed his voice to the floor, "Mr. Porter, you may come up from the basement." Saying this he proceeded to open the trapdoor.

Two sharp, staccato shots rang out. Kitman straightened, clutched at his chest, reeled, and fell to the floor. Porter climbed slowly through the trapdoor, automatic in hand, and looked at the inert form.

Looking at the prostrated form of Kitman, Porter turned to Belin. "It was the only thing I could do," he said. "His death can mean life for millions of others." Then disregarding the figure on the floor, he asked, "did he say war was declared?"

Belin nodded slowly, his eyes drawn irresistibly to the body of his secretary. "Yes, it was the only thing to do and, I'm glad you acted promptly. No doubt, I will be asked as to the whereabouts of Kitman and I will have to forestall any inquiry—at least until you have accomplished your mission. It's too bad, though, he had to die."

Belin sighed heavily as if he had lost a bosom friend rather than a potential enemy. "We must get back immediately," he continued. "Not a second must be lost. You will have no further opportunity to see me. I will take care of your transfer and see that you are placed in positions most advantageous for the execution of our plan. We may never meet again, Porter, but our names shall ring together through eternity!"

Filling two glasses of wine, Belin picked one up, "To a greater Moravia—

and a glorious death!"

Porter hesitated a moment—"To a hell of a good story that I'll never write!"—and Porter brought the other glass to his lips.

CHAPTER V

His Land of Opportunity!

WHEN Porter returned to the city, it was different than the one he left only a few hours previous. Loud speakers in the Square blared forth momentous events concerning the declaration of war; of the "impending doom of Capitalism"; of the preparations being made for hostilities; of mobilization, which Porter now knew was merely a sham to hide the activities of preparation for use of the Super-X. The populace was in a frenzy of patriotic hysteria. Everywhere flags were flying, men and women shouting; soapbox orators were addressing throngs on every corner urging the citizen to "now take advantage of the opportunity to save the world for Humanity."

He was not a little bewildered at this sudden change, although he had been appraised of the declaration of war, and he knew—probably better than any man of the thousands in the Square, the lethal meaning of the break between the two countries.

He hailed a shouting newsboy and hurriedly scanned the front page. Thoroughly trained in the working of the Moravian press, he could read between the heavily propaganized lines. Already, in the offing, rumblings of International concern could be heard. England, convinced that America had correctly determined the source of the great plague, had called a meeting of Parliament to consider its own stand in the situation. Germany, through its press, gave indication of taking sides. France was watching the situation with considerable concern. Meanwhile, however, Moravia made public its demands of complete neutrality by surrounding nations and the right to move troops to the far borders of these small nations, "for mutual protection."

The League of Nations through the World Court was already demanding the opening of negotiations, but its cry was like the peep of a bird in a boiler factory. Regal signatures hardly dry on imposing documents which guaranteed to end war, were already fading. The roar of the great Moravian Bear shook the world and mankind saw no alternative but to prepare in defense of home and family against its onslaught.

Little did the world realize the crushing force and unconquerable power that a bare handful of men held ready to loose on the populace of the Earth.

PORTER immediately made his way to his place in the Bureau of Research which now, to all practical purposes, had become the Bureau of War. The flood of propaganda had, even this early in preparations, made its mark on the citizenry. He noticed a certain coolness on the part of his co-workers. Although they knew he had pledged allegiance to Moravia and had become a citizen of that country, Porter recognized the reason for this hatred and change in attitude and inwardly despised them far more fiercely than they did him, for it would be this group who would directly wield the power that might mean the end of his own country —for it *was* his country, *his* America despite the formality of a change in citizenship. But he further realized that if he is to be of any value to his country, he must allow no one to think that his heart was anywhere but in Moravia.

He laughed with his "comrades" when they chided him about his Amer-

ica birth; he scorned, to those surrounding him, the possibility of America ever being able to withstand Moravia's attacks; he lauded Moravianism and drank toasts to the honor of Dictator Michel, and heartily agreed with his fellows that "soon the world will be safe for civilization and progress."

But within, his heart cried out for the vengeance he sought against the government who would wage a war by centering its activity against the women and children, the old and the feeble, the incompetent and the invalid, of the enemy. Yet, what could he do single handed against the will of millions? He trusted Belin implicitly, but even he—as high as he stood in affairs—what could he do to prevent the onslaught which was now only a few days distant at the most? But he held hope—hope that Belin would prove the genius in him.

IN accordance with the military-like custom of the Bureau in which Porter was employed, the workers jumped to rigid attention when a high military officer entered the laboratory. Immaculately attired, a monocle in his right eye, a cigarette held tightly between thin lips which were almost hidden by a small goatee and a carefully trimmed mustache, the uniformed officer stepped to the center of the room, three aides close behind him. The workers relaxed their position when an "at ease" order was given.

"Gentlemen," the officer began, "I shall, until the end of the War, be in command of this group. The battles will be fought and won by you! This group, composed of you gentlemen, is the most important unit of the entire Moravian force. Activities will begin within the next day or two. We should, therefore, get acquainted. My name is Ivan Stemenov!"

Every man in the place had heard of the famous biologist, but it was only Porter's blood that surged at the introduction. Only Porter knew of the fiendish activity that he had carried on in America—that it was he who was the basic cause of the impending war.

The wine was like poison to Porter when he joined the others in a toast to their new commander. The hand that grasped the glass longed to clutch the throat of this man whose praise they were voicing. Yet he played the part well. Somewhere, Ivan Stemenov fitted into the scheme of things and if ever there was to be an opportunity to render retribution, it could only be through the "favor" of the Commander.

Further developments the following day gave indications of rapidly plunging an entire world into the conflagration. The sympathy of democratic Europe was almost entirely with America, while Asiatic countries saw their hope of international prominence in siding with Moravia. Although no further declarations of hostilities had been announced, such action seemed to be well within the realm of the near future.

IT was shortly after Porter had arrived at the Bureau that Stemenov came in. Following a short discourse on how fortunate an individual should consider himself in being a citizen of Moravia he concluded his opening remarks with: "and the most fortunate of all are the engineers engaged in the Bureau of Research for this war shall be a scientific war—swift, destructive and certain!"

He paused to allow the full significance of his statement to be appreciated, then he launched into details, after warning that "this is war and every action must be guarded, every word held in strictest confidence." A few of the men in the room stole furtive

glances toward Porter to see how the imminent unraveling of plans was being taken by one who was to aid in waging destruction against the land of his birth. He feigned enthusiasm admirably. Stemenov continued by telling of the Super-X, its operation and capabilities.

"There is no force great enough to withstand it," he said. "The first projectile-rocket, carrying ten Super-X machines, is scheduled to leave its mark on the enemy at midnight tomorrow. Each machine, released on a parachute at a height of approximately five miles, will kill everything that breathes within a hundred-mile radius! The machines will drop automatically every fifty miles so that the over-lapping will leave a path of death five hundred miles long and one hundred miles wide! The cry of surrender will ring in our ears within 72 hours! The great United States of America will be the United States of Moravian America within one week!

"And now gentlemen, witnessed by every official of our great country, ten men selected from this laboratory, will handle the technicalities and the actual launching of the projectile as well as the timing of the Super-X machines. I know that you all want to take part in this history-making epoch, but my orders are to name ten men only."

He drew a sheet of paper from his pocket on which were indicated the names of scientists who would take part. As each man heard his name he drew to attention. . . . "Hammacher, because of his work with rocket fuels; Partow, because of his methematical genius; Tarlo, because of his electrical developments, and Porter, because he is an American engineer and a good one—who found in Moravia his land of opportunity."

Porter saw Belin's hand in this. He had undoubtedly arranged it. Now, Porter realized, it was squarely up to himself. Just what he could do was not yet clear in his mind, but a faint idea —a hope—was beginning to materialize, to save his country—to avert the slaughter of millions of innocent people. Truly: "Moravia his land of opportunity!" The paradox made his smile.

CHAPTER VI

The Deadly Rocket

THE first grey streaks of dawn lighted the sky over the city as ten engineers boarded two automobiles to be whisked away to a desolate, isolated spot nearly one hundred miles away.

An errand of death beckoned the ten men—an errand upon which they were duty-bound to execute. Clad in regulation army officer's attire, a holiday mood brought laughter and song from within the speeding automobiles. They were on their way to "war"—and they alone were being given the honor of fighting for their country. This was an engineers' war, and they were the engineers! Before their superior officers and every major governmental officer, as well as scientists of note and invited guests of distinction, it would be they who would fire the "shot heard 'round the world."

It would be a gala occasion, this initial shot of the war with America—the war "to save the World for Humanity," as the propaganda mill so aptly put it. And why keep this affair quiet? As far as Moravia was concerned, the war was won almost before it started. This opening demonstration was of a "new mammoth gun which would fire a shell a thousand miles." Except for the Research Bureau, only a very few knew of the capabilities of this diabolical weapon; the others didn't even surmise

that the monster, cannon-like hulk was anything more than a new-type gun, as was "confidentially" explained in the invitations.

The ten engineers were made thoroughly familiar with the mechanics and operation of the projectile and the Super-X machines during the two days previous. Every man had his distinct duty and, aided by a labor crew which was supervised in the erection and placing of the high-frequency mechanism within the rocket, the actual firing of the shot on this bleak, October morning, was a gala occasion. The field would be cleared of everyone except the ten men. They would each inspect the rocket mechanisms and the machines—and Porter would release the firing pin!

PORTER gazed with unseeing eyes at the landscape whizzing past the automobile. The shouts and laughter of his fellow scientists fell on deaf ears—fellow scientists—scientists — so this was science—to kill, to slaughter by millions, to murder, to wipe out a nation in a single sweep. He was no scientist! He was a newspaperman! He loved the world, its people; their trials and tribulations, their gladness and their happiness; and he was riding to prepare their doom . . . to light a fire of death for Millions!

But he dared not show a trace of anything akin to sympathy. No, he must laugh and shout and curse—for this was war—and he was an officer in the army of the Union of Moravia! He held the post of honor, for it would be he who would fire the shot that would cut a path of death across a continent.

The automobile swung into the field. From all directions automobiles were entering the grounds. Thousands would witness the gala event. Fully 100,000 soldiers were present to lend "atmosphere" to the occasion. Lined all around the field, they formed a human fence to keep the milling throng two thousand feet away from the projectile. At a place of vantage was a grandstand in which were seated all the high officials in government and military circles. In another part of the field was the section set aside for the press.

No attempt had been made in the previous two days, to keep secret the fact that a new and powerful weapon would be used in the war against America. In fact, foreign correspondents were aided in sending such news to their papers. It had a definite two-fold effect. First, countries who were in sympathy with America would, for the time being, keep hands off the situation until the new weapon had been demonstrated and then determine whether it was advisable to join in combating the country that owned such a device. Secondly, it would demoralize America. Fear of an unknown weapon which, it was promised, would make itself felt on a certain day and at a certain hour obviously would have its effect upon the enemy.

American secret service operators in Moravia reported the huge gun, but could secure no details concerning it. Rumors ran rife, but no one even remotely guessed what the huge projectile actually meant. One daring secret service agent stole a Moravian plane and, equipped with hand bombs, planned to wreck the contrivance. But he was seen taking to the air and was shot. Thereafter a more stringent guard was thrown around the field and the airports. Incoming planes, from other countries were warned to fly no closer than one hundred miles from the field, to avoid further possibility of bombing.

PORTER stepped out of the car when he reached the field and, with other engineers, was escorted by a mili-

tary unit to pass in review before the officials' stand. He felt as if he were in a dream as he marched past the shouting and flag-waving throngs; the dignified austere salutes of the Commissioners and the military heads.

This was the Moravian army filing past . . . ten men, escorted by a grand display of military strength . . . soldiers who might just as well be made of tin and carry spears instead of rifles for all the good it would be compared to the strength and powers of destruction that lay in the Super-X.

The note of a bugle cut through the chill of the morning air. The applause and cries of the crowd ceased. The soldiers stood at rigid attention. The flag of the Union of Moravia was being raised!

The ceremony was opened. The war had begun: Ivan Stemenov—Colonel Ivan Stemenov—took command of the detachment of engineers and, heading them, marched toward the apparatus while the crowd, in anticipation of the event of the day, cheered wildly. These ten engineers had overnight become the popular idols of all Moravia.

Porter was thinking. Every second now brought his own beloved country closer to annihilation. There was no one who knew, except himself, who believed that there was the slightest possibility of averting that which seemed a certainty: that the projectile would leave the field carrying its cargo of torture and death to America. His life would mean nothing in exchange for the lives of his countrymen. He might not have felt this way if the battle could be on a more equal scale. But the unfairness—the stark cruelty—the inhuman way in which the weapon was to be used—striking at defenseless noncombatants was horrible. And they expected *him* to pull the pin which would send the rocket on its way? They would give *him* the honor because the war was against his country and he had served Moravia so long and so well! He smiled inwardly. He had given them credit for better judgment. But then, it was Belin who was aiding him. It was Belin who placed him in that position of vantage, for if ever an opportunity to act would be presented, he would be given that opportunity at the crucial moment!

GOOD old Belin! It was only he, possibly, who knew what was in Porter's mind, what were Porter's plans. And yet he sat in the Reviewing Stand, calm and of stern visage. Porter tried to discern some visible expression of encouragement on the face of the Diplomat, but he seemed not even to notice him, while all other eyes seemed to be centered upon himself—he, the young American who would fire the shot! Why, it was almost a circus and he the featured performer!

Porter wondered, as he marched across the field toward the projectile, if the crowd realized why they were cheering. Was it really a bloodlust? They weren't marching off to war. This was merely the opening shot. War hysteria is a funny thing, he thought. Would they be cheering if they really knew what would happen after the projectile left the field? The cries and shouts of the mob grew fainter as he neared the apparatus together with the other nine men of the Bureau unit.

And Belin didn't even notice him! That troubled Porter. Had he been merely testing his loyalty, at their rendezvous? No, that couldn't be, for he seemed to approve of the necessary extinction of his secretary when he threatened exposure. Had something gone wrong in his original plans?

Trivialities occupied his mind. Ten men and a commander marching to war! That seemed to have a ludicrous

angle and brought a smile to his lips. And each carried a heavy pistol in a holster at the hip—and the enemy some 4000 miles away! That *was* ridiculous. It reminded him of the times, when he was a little boy, that he played "war" and, equipped with a wooden sword and a paper hat, would march to do battle with an enemy that existed only in his imagination. Perhaps all this ceremony had a moral effect on the populace. Perhaps it was merely the result of a desire on the part of the officials to see a war "done" right. At any rate, the demonstration was "impressive."

STEMENOV, in a stiff, military manner, brought his wrist-watch to the level of his eyes to launch the rocket at the exact pre-determined time. Each man, upon reaching the apparatus, took his post. While one carefully inspected the timing gears, another examined the intricate parts of the rocket launching apparatus. Tarlo was scrutinizing the delicate adjustments on the Super-X machines, Hammacher was looking into the fuel capacities. The few, including Porter, who could do nothing until the time for actual launching of the rocket arrived, and were standing idly nearby.

A sharp call of "attention!" and the ten engineers immediately fell into line. A blast upon a bugle notified the authorities and guests on the distant sidelines, that all was now in readiness. An answering bugle gave the order to "fire when ready."

The detachment of soldiers which accompanied the engineers to the apparatus, returned to the sidelines, leaving only Stemenov and his ten men at the machine. The commander then gave the final orders: "Gentlemen, in a few minutes America will have felt the powerful hand of Moravia. Success is assured. Before the detonation cap is fired, I want to repeat my warning: Remember, it is every man for himself after the cap is fired, for you have only *two* minutes to repair to a safe distance before the searing explosion which will send the rocket on its journey. In *three* minutes after the detonation cap is fired, the Super-X machines start their whine of death preparatory to their release by parachutes over the United States.

"As a precaution, in the event the rocket does not leave the ground, a heavy charge of dynamite located beneath this rocket runway will utterly destroy it before the Super-X has an opportunity to operate on this field. These wires lead to the sidelines where an officer will release the charge if, in ten seconds after two minutes, the rocket is not on its way.

"You gentlemen who have completed inspection, may return to the lines leaving Wilens, Borot, Porter and myself to return after the detonation signal."

Seven men left the field leaving four beneath the shadow of the greatest, the most demonical machine ever created by man.

PORTER was visibly nervous. Once Stemenov noticed his manner, which he mistook for timidity, chided him and reiterated the glory that would be his for having fired the shot which would mean, practically, the immediate surrender of America and the ultimate expansion of Moravia. Porter smiled feebly—the smile of a brave man who might be watching preparations for the cutting out of his own heart!

Only minutes stood between any action that he had planned, and its execution. He must not err. Although he was alone with three men on the field, thousands of binoculars in the sidelines peered upon him through the morning haze. An automobile, engine running and with a chauffeur waiting, stood

nearby to rush the four men to safety after the detonation signal. The low whine of the Super-X machines could now be clearly heard, following the closing of the switches by Wilens and Borot. In three minutes their destruction would begin.

"Fire!" Stemenov ordered.

Porter hesitated.

"Close the detonation switch," Stemenov screamed, dropping his cloak of military austerity to rush over to fulfill the duty which Porter had b e e n assigned. Seconds were precious.

Porter whipped out his revolver, and brandishing it at the three men and the chauffeur in the car, ordered Stemenov to halt, and for all to throw up their hands. Surprise at this turn in events, rather than temerity on the part of the commander, stopped him. Before a word could be uttered, Porter drew a pair of cutters f r o m his pocket and severed the wire which would dynamite the apparatus. Its mere destruction was insignificant compared to a greater purpose he held in his mind.

This latter action on Porter's part galvanized Stemenov into action. Dropping his hands, he made for his pistol. Porter's gun barked twice and the commander crumpled and lay still with a bullet through his head. Again Porter's pistol spoke and the chauffeur slumped at the wheel after an attempt to make for his gun in disregard of the warning to keep his hands up. The other two restored a rigidity to their arms which were held over their heads.

Already a minute had passed. A field telephone was ringing. Porter answered. Was something wrong? Although the haze of early morning made it difficult to discern, it appeared from the sidelines that their activity had ceased—something seemed to be wrong.

Porter, feigning Stemenov's voice, assured the questioner that everything was all right, but that a minor adjustment necessitated two more minutes of time. Apparently satisfied, the field officer broke the circuit.

WILENS AND BOROT hesitated to make a concerted leap upon Porter. To face the gun of their antagonist was a certainty of death; the everwhine of the Super-X machines presented only a possibility, as far as they knew. According to calculations, only a little more than a minute was left.

"For God's sake, throw the switch," the two pleaded. "You'll wipe out everyone within fifty miles in the next minute! It's m u r d e r, Porter, it's murder!"

Porter only smiled. He glanced at his watch. Just fifty seconds more. What a war! One man and one gun. The eerie whine of the Super-X machines had now reached a point of inaudibility. What a joke! Truly, Moravia *was* his land of opportunity!

The field phone was ringing. Let it ring! Two engineers were pleading. Let them plead! A distant band was playing. Let it play! Soon all would be still—quiet—peacefully silent.

Twenty seconds more. Wilens and Borot suddenly dropped their hands. Each held a revolver. But Porter was faster. His gun spat twice. Wilens clutched his breast and toppled. Borot returned the fire before another shot finished him, and caught Porter beneath the heart.

THE shots and action as seen through the binoculars started motorcycles speeding toward the apparatus. Porter propped himself against the steel base of the rocket-cradle. With a blood-soaked handkerchief he made a feeble attempt to stem the flow from a fatal wound. He smiled as he watched the

distant motorcycles make a futile race against Time and Death. In five seconds, the Super-Frequency would have been reached. Two motorcycles reached the scene; others were following. No one thought to fire the rocket before the all-destroying frequency became effective. The soldiers were, after all, unfamiliar with the meaning of the high-pitched whistle which had been heard on the sidelines and now, being inaudible, was not considered.

Questions of what had happened were being directed to Porter until one of the engineers arrived in a side car and called to "fire the rocket!"

As he called, he fitted action to words and leaped toward the firing pin. Porter laboriously lifted his revolver and fired again. The engineer, with a cry of "traitor!" returned the fire, but the bullet in his abdomen sent the return shot wild.

A strange prickling sensation ran through his body. The soldiers, who rushed to the aid of the engineer and to Porter, also felt it. Then, with a startling suddenness, the sensation became painful. The soldiers, unaware of anything untoward, dropped their guns and began rubbing their bodies. The thousands on the field were also feeling the effects of the frequency.

But Porter knew. He laughed aloud as he watched the first effects of the Super-X. It was with difficulty that he forced his mind to retain consciousness for the remaining brief seconds to witness the successful conclusion of his plan. Then, like the searing of a knife through muscle, the full force of the frequency came into play.

Porter smiled. A twisted pain-racked smile. He stiffened as the frequency tore at the nerve fibers; the agonizing death proposed for a nation.

AN extract from the New York Times one year later can best complete this story:

"Washington, D C., April 16. A national holiday has been declared May 5 by Presidential Proclamation, in tribute to the memory of Millard Belin and William F. Porter, when a statue will be unveiled here to their honor.

"An imposing list of dignitaries will take part in the ceremony, including diplomatic representatives of the Republic of Moravia, who will unveil the monument. . . ."

THE END

(Continued from 76)

miles above Ganymede, Athasia was just settling beneath the angry waves. . . .

No word passed their lips as they rocketed through the night toward the native village of Ila. It was a time for silence and gratitude and . . . trying to forget.

It was ironic. Webb thought, that of the thousands who had journeyed here to achieve forgetfulness. not a man would live to enjoy it. But there was a measure of sweetness in his bitter reflections.

Jan Marlan would be enjoying a peace he had not known for a long time. The others were no worse off than they had been. And Earth—

There might be turmoil and bloodshed for a while, but after that would come the glory of a new dawn. For the real battle had already been fought and won.

In Webb's ears, as they shot on, the roar of the blazing rocket tubes became a song of victory. . . .

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